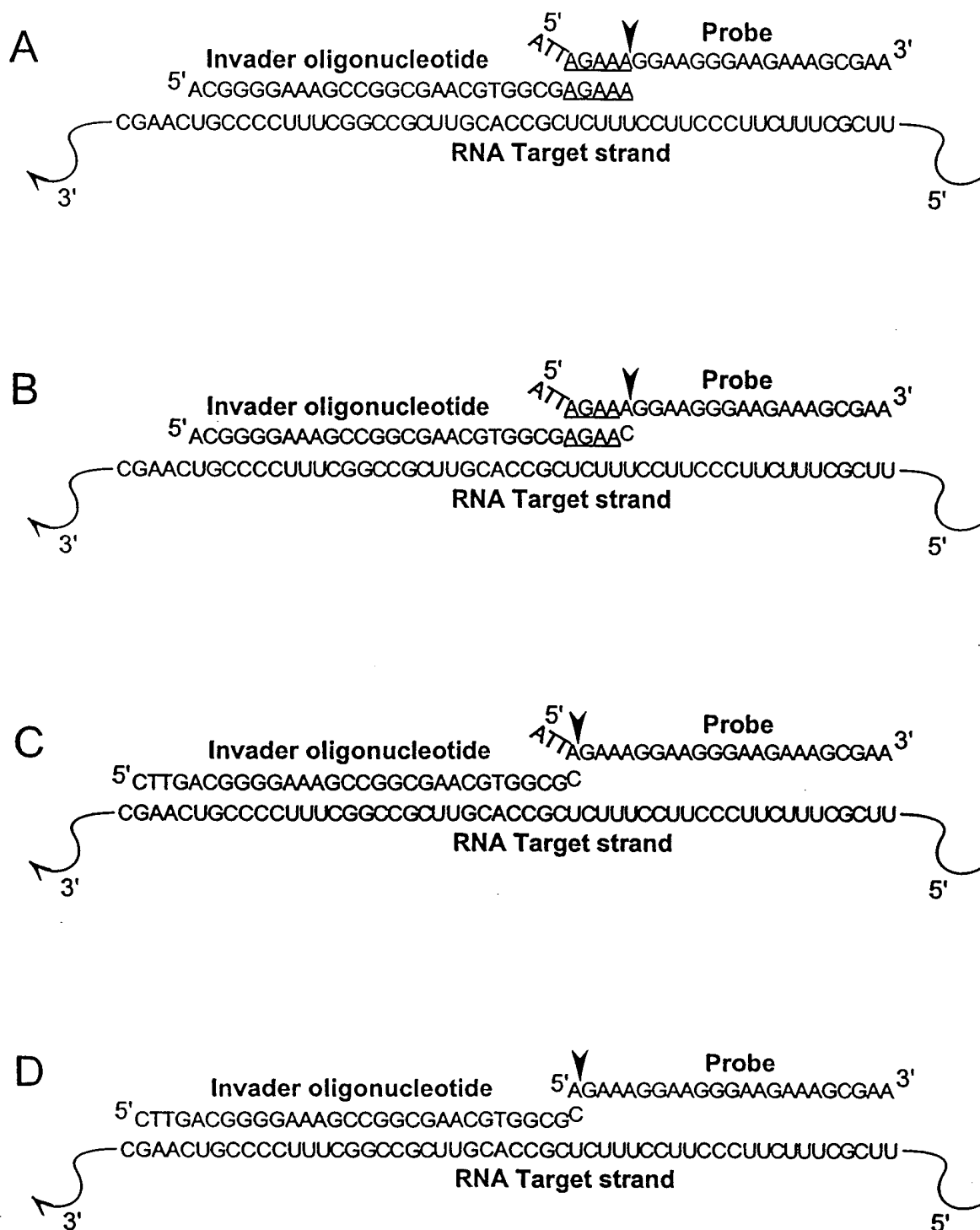


FIGURE 1

FIGURE 2



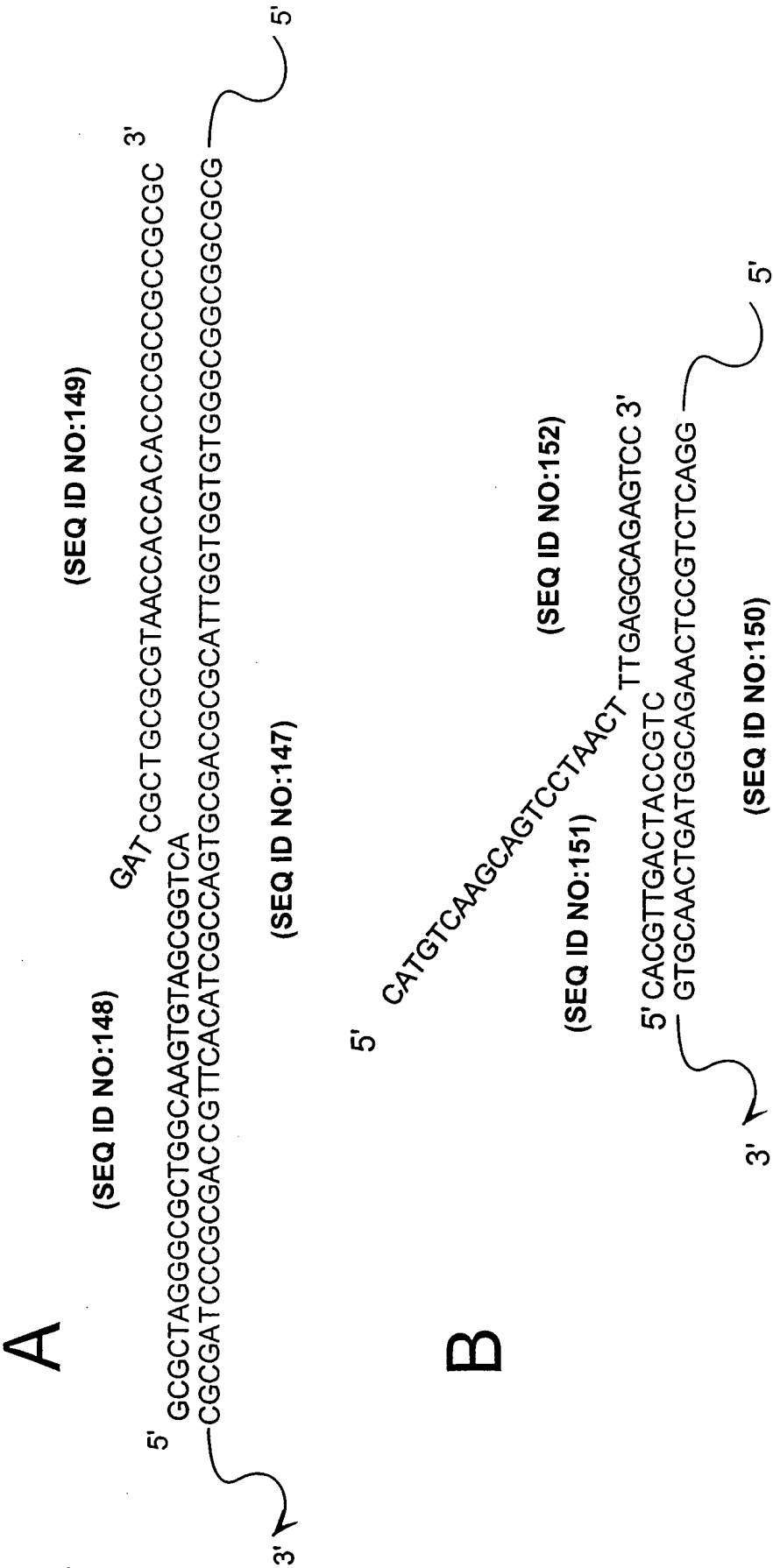


FIGURE 3

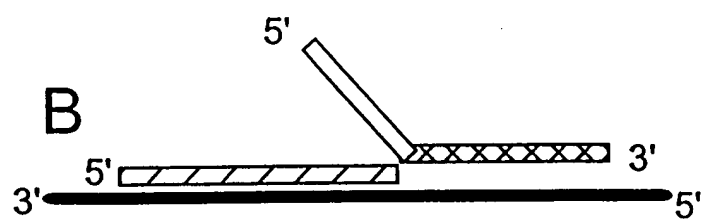
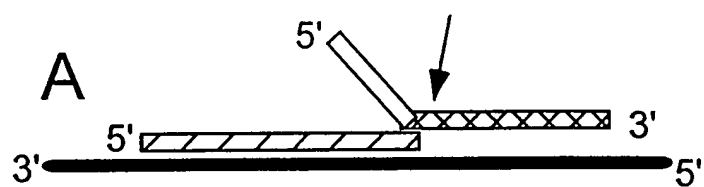


FIGURE 4

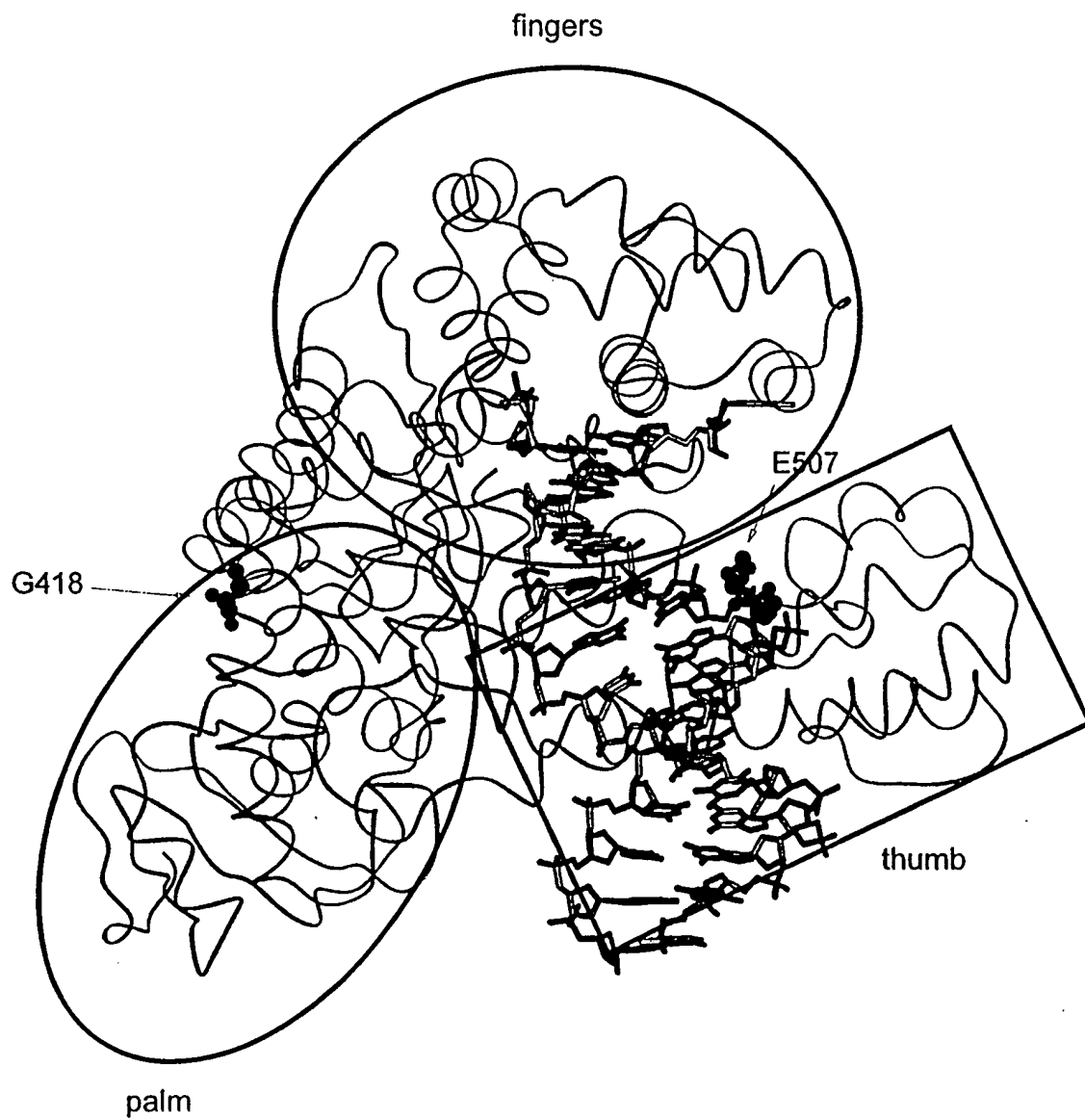


FIGURE 5

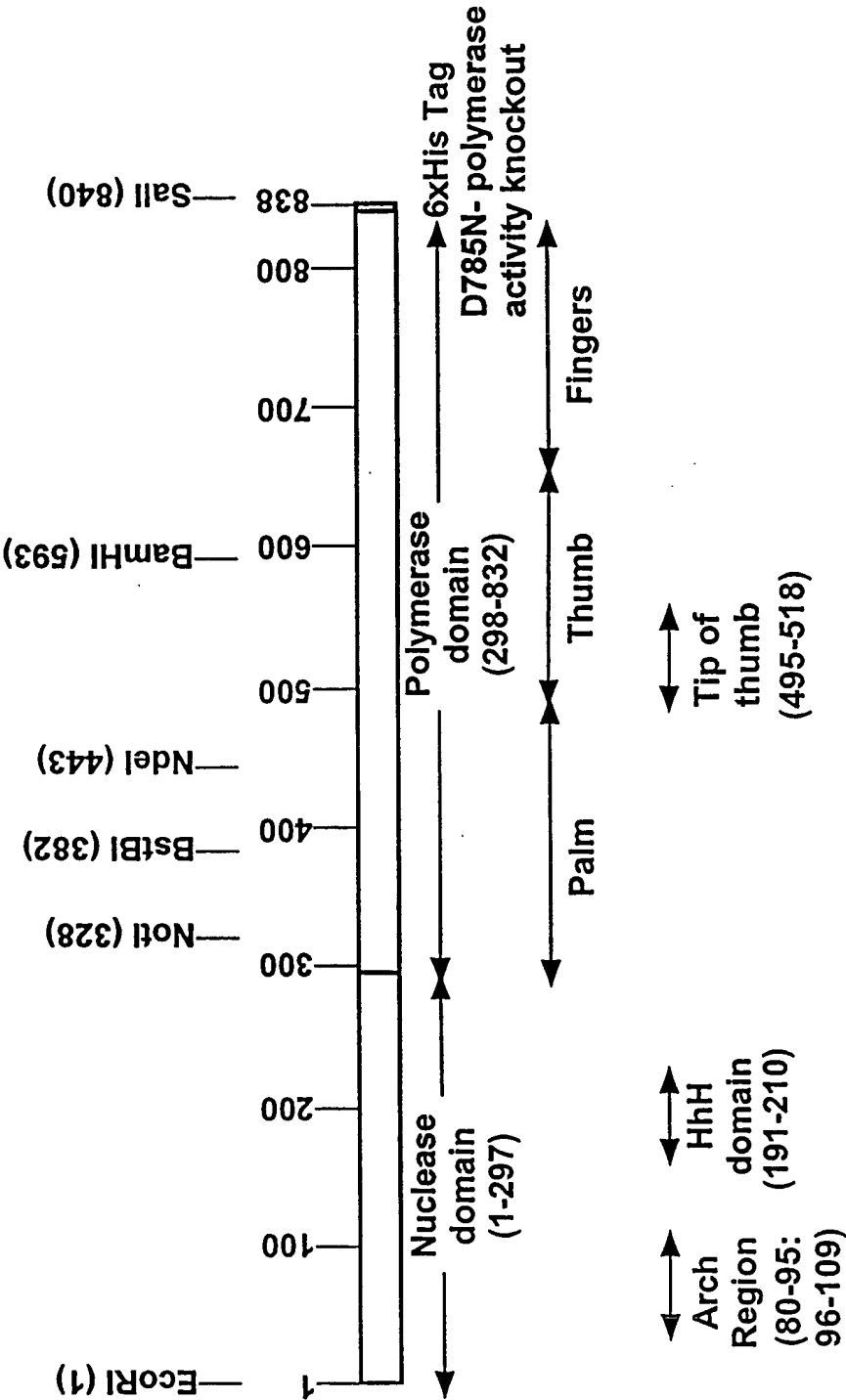


FIGURE 6

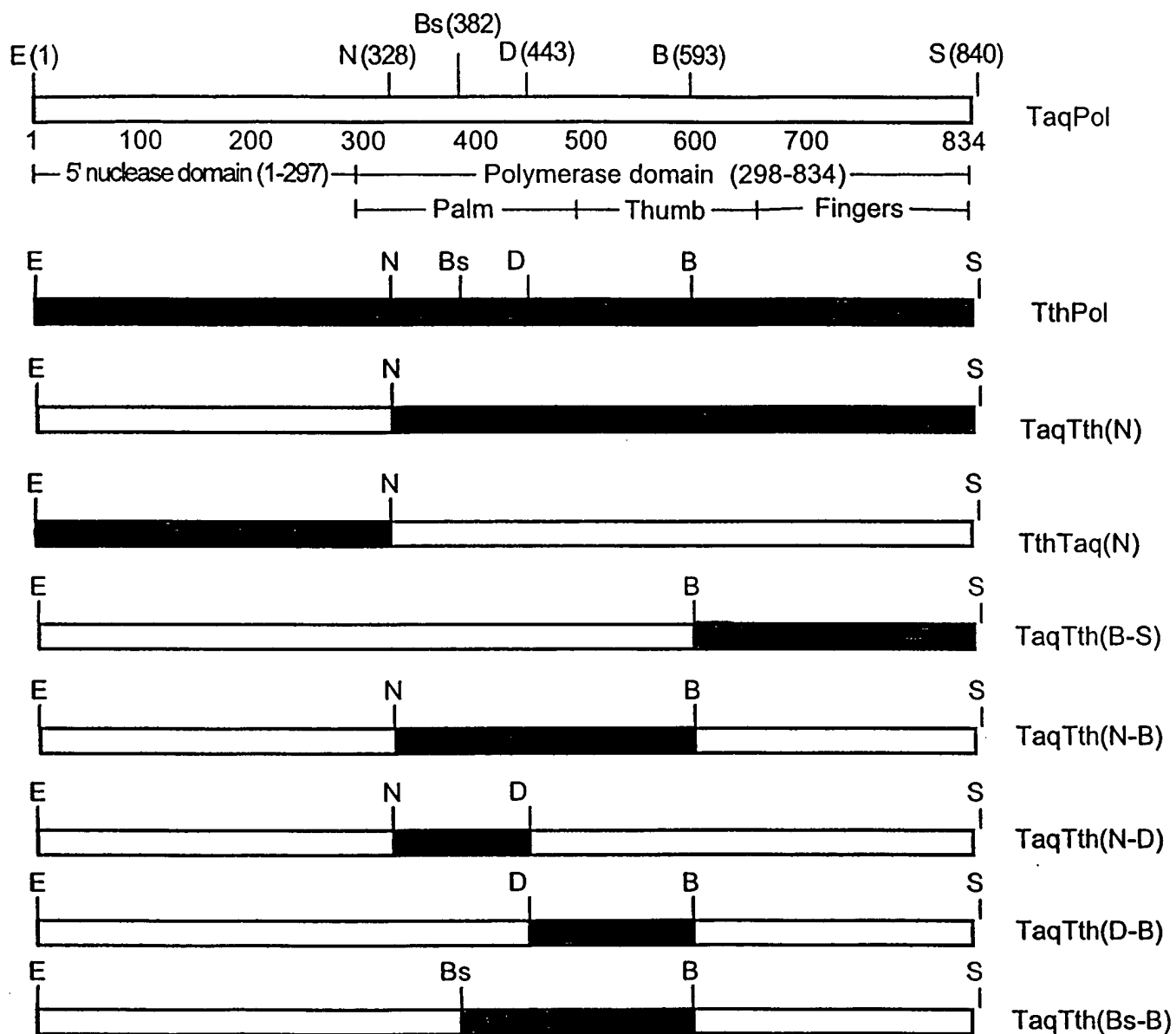


FIGURE 7

FIG. 8A

MAJORITY [SEQ ID NO: 156]	ATGXGGGGATGCTTCCGCTCTTTGAGCCCAAGGGCGGTCCTGCTGGTGGACGGCCACCACTGGCGCT	
DNAPTAO [SEQ ID NO: 153]	..AG..G.....G.....	70
DNAPTFL [SEQ ID NO: 154]	.....C..G.....	67
DNAPTTH [SEQ ID NO: 155]	GA.....G.....A.....	70
MAJORITY	ACCCACCTTCTTGGCCCTGAAGGGCCCTCACCACGACCCGGGGGGAACCGGCTGCAGGGCGGCTACGGGCTT	
DNAPTAO	.....CA.....G.....	140
DNAPTFL	.....T.....C.....C..T.....	137
DNAPTTH	.....G.....	140
MAJORITY	CGCCAAGAGGCTGCTCAAGGCCCTGAAGGAGGAGCGGGGACXXGGGGGTGXTGCTGGTCTTTGACGCCAAG	
DNAPTAO	.....C.....A.....	207
DNAPTFL	.....A.....GT..T.....	204
DNAPTTH	.....T..AA..C..CT.....	210
MAJORITY	GCCCCCTCCTTCCGCCACGAGGGCTACGAGGGCTACAAGCGGGCGGGGGCCACGCCGGAGGACTTTC	
DNAPTAO	.....G..GG.....G.....	277
DNAPTFL	.....	274
DNAPTTH	.....GA.....G.....G.....	280
MAJORITY	CGCGGCGAGCTCGCCCTCATCAAGGAGGCTGGTGGACCTCCTGGGGGCTTGGCGGGCCCTCGAGGCTCCCGGGGCTA	
DNAPTAO	.....A.....G.....	347
DNAPTFL	.....G.....T.....A..C...T...G..G...T.....	344
DNAPTTH	.....T...A..C.....	350

FIG. 8B

MAJORITY [SEQ ID NO: 156] CGAGGGGAGGACGCTGTGGCCACCCTGGCCCAAGAGCGCGGAAAGGAGGGGTACGAGGTCGGGCATCCTC

DNAPTAO [SEQ ID NO: 153]C.....G.....C.....C.....C..... 417
DNAPTFL [SEQ ID NO: 154] T.....G.....CG.....T.....G..... 414
DNAPTTH [SEQ ID NO: 155]T..C.....T.....C.....C..... 420

MAJORITY ACGGGGAGCGGGAGCCTCTACCAGCTCCTTTCGACCGGCATCGCCGTCCTCCACCCCGAGGGGTACCTCA

DNAPTAOAAA.....T.....CA..... 487
DNAPTFLT.....G.....A.....T.....G..... 484
DNAPTTHA..G.C.....G.....CC..... 490

MAJORITY TCAGCGGGGGCTGGCTTTGGGAGAAGTACGGCCCTGAGCGCGGAGCAGTGGGTGGACTACCGGGGCCCTGGC

DNAPTAOC.....A.....C..C.....CC.....A. 557
DNAPTFLAC.....C.C..... 554
DNAPTTHA.....C.....T...C....C.T 560

MAJORITY GGGGAGCCCTCCGACAACCTCCCCGGGGTCAAGGGGCATCGGGGAGAGACCGGCCXGAAGCTCCTCXAG

DNAPTAO C.....GAG.....T.....G..GAG.....T..GG.. 627
DNAPTFLG..T...A.....G.....A..G....A..CGC 624
DNAPTTHA.....C.....TC.....A.. 630

MAJORITY GAGTGGGGGAGCCCTGGAAAACCTCCTCAAGAACCTGGACCGGGTGAAGCCGGC- - -CXTCCGGGAGAGA

DNAPTAOGC.....C.....A..... 694
DNAPTFLT..C..C.....A.....T...T.G.....C 691
DNAPTTHA.....A.....A.AAAA.G..... 700

DNAPTAQ	.....G.....	C..C..G..T..A..AA..C..C..	G.....C..	1044
DNAPTFL	T..GG..GT.....	G..CC..T.....A.....C.....G.....	T.....G.....	1041
DNAPTHH	....TG.....	C.....G.....GGC...G..A..A.....C.....	C.....C..	1050

FIG. 8D

MAJORITY [SEQ ID NO: 156] CCGGGXCTCCTCGGCAAGGAGCTGGCGGTTTTGGCCCTGAGGGAGGGCCXGACCTCXTGCCCGGGGACG

DNAPTAO [SEQ ID NO: 153]G..T.....A.....AG.....C.....A.....T.G.....CC.....C..... 1114
DNAPTFL [SEQ ID NO: 154]AA.....G.....G.....C.....C.....T.C...A.A..... 1111
DNAPTTH [SEQ ID NO: 155]C.....C.....C.....TC.....G..A.....G..... 1120

MAJORITY ACCGCATGCTCCTCGGCTACCTCCTGGACCCCTCCAACACACCCCGAGGGGGTGGCCCGGGCGCTACGG

DNAPTAOT.....T..... 1184
DNAPTFLG.....T.....T.....T..... 1181
DNAPTTHT.....T.....G..... 1190

MAJORITY GCGGGAGTGGAGGGGAGGAXGCGGGGGGAGCGGGCCCTCCTXTCGAGAGGCTCTCCXGAACCTXXGGAG

DNAPTAOG.....G.....GC...T.....GCC.....GTG..G. 1254
DNAPTFLT.....A.....GG.....C.C.....A..C...AAA.... 1251
DNAPTTHC..C.CCC.C.....C..G.....CAT.G.....CCTA.. 1260

MAJORITY CCGCCTTGAGGGGGGAGAGAGGCTCCTTTGGCTTTACGAGGAGGTGGAGAGCCCGCTTCCCGGGTCCCTCG

DNAPTAO A.G.....G.....G.....G.....GCT..... 1324
DNAPTFLA...A..A..AC.C..G.....G.....G.....GT... 1321
DNAPTTHC.....A.....C.....C.....A.....G..... 1330

MAJORITY CCCACATGGAGGGCCACGGGGGTGCGGCTGGACGTGGCCCTACCTCCAGGGCCCTXTCCTGGAGGTGGCGGA

DNAPTAOG..C.....G.....T...AG....T.G.....C... 1394
DNAPTFLGG.....C.....C.....C.....A...A..C 1391
DNAPTTHC.....C.....A.....T.....T.....C.T..... 1400

FIG. 8E

MAJORITY [SEQ ID NO: 156] GGAGATCCGCCCGCCTCGAGGAGGAGGTCTTCCGGCTGGCCGGGCGCACCCCTTCAACCTCAAGCTCCCGGGGAC

DNAPTAQ [SEQ ID NO: 153]GC.....CG..... 1464
DNAPTFL [SEQ ID NO: 154]G.G....AG..G..... 1461
DNAPTTH [SEQ ID NO: 155]T.....G..... 1470

MAJORITY CAGCTGGAAAGGGTGCTCTTTGACGAGCTXGGGCTTCCGGCCATCGGCAAGACGGAGAAAGACXGGCAAGC

DNAPTAQC.....A..... 1534
DNAPTFLGC.....G..C..G..T.....G..G..A.. 1531
DNAPTTHTA.....T..G..G.....C..A..... 1540

MAJORITY GCTCCACCAGCGCGCGCTGCTGGAGGGCTXCGXGAGGCCCGACGCCCATCGTGGAGAAAGATCCTGGAGTA

DNAPTAQC.....C..C..... 1604
DNAPTFLT.....G..A.....CGGC..... 1601
DNAPTTHG.....A..G.....C...C.. 1610

MAJORITY CCGGGAGCTCACCAGGCTCAAGAACACCTACATXGACCCCTGCCXGXCCTCGTCCACCCGAGGACGGGC

DNAPTAQG....G.....T....G..A....A..... 1674
DNAPTFLA.....C..C....G....A...C... 1671
DNAPTTHG..G.....C..AAG.....G..... 1680

MAJORITY CGCCTCCACACCGGCTTCAACCAGACGGGCCACGGGCCAGGGCTTAGTAGCTCCGACCCCAACCTGC

DNAPTAQA.....T.....C.. 1744
DNAPTFL ..G.....C.....TCC..... 1741
DNAPTTHG..... 1750

FIG. 8F

MAJORITY [SEQ ID NO: 156] AGAACATCGCGGTCCGCCAGCCXCTGGGCCAGAGGATCGGCCGGGCCCTTGGTGGCCGAGGAGGGXTGGGT

DNAPTAO [SEQ ID NO: 153]G..T..G.....A..C.....G....G.. 1814
DNAPTFL [SEQ ID NO: 154]G.....T.....C..C.....A.....C.... 1811
DNAPTTH [SEQ ID NO: 155]CT.....G.....C....T....G 1820

MAJORITY GTTGGTGGCGCTGGACATATAGCCAGATAGAGCTCGGGGTGGTGGCCGACCTCTCCGGGGGAGGAGAACCTG

DNAPTAO A.....T.....A.....G.....C..... 1884
DNAPTFL .C.....T..T.....C.....T..... 1881
DNAPTTHT.....C.....C.....A..... 1890

MAJORITY ATCCGGGTCTTCCAGGAGGGAGGGAGACATCCACAGCCAGACCGCCAGCTGGATGTTGGGGGTCCCCCGGG

DNAPTAOC.....GG.....G... 1954
DNAPTFLT..... 1951
DNAPTTHA.....A..... 1960

MAJORITY AGCGCGTGGAGCCCTGATCGCGCGGGGGGGCCAAAGACCATCAACTTCGGGGTCCCTCTACGGGCATGTCGGC

DNAPTAOG... 2024
DNAPTFL .A..GG..A.....T.....G..... 2021
DNAPTTHGG..G.....C..... 2030

MAJORITY CCACGGGCTCTCCGAGGAGGCTTGGCATCCCCCTACGAGGAGGGCGGTGGCCCTTCATTGAGCGGCTACTTCCAG

DNAPTAOA.....T.....CCA.....T... 2094
DNAPTFLGG.....T..... 2091
DNAPTTH ...TA..G.....T...A.....A 2100

FIG. 8G

MAJORITY [SEQ ID NO: 156]		AGCTTCCCAAGGTCCGGCCCTGGATTGAGAAGACCCCTGGAGGGCAGGAGCGGGGTACGTGGAGA	
DNAPTAQ [SEQ ID NO: 153]		.....	2164
DNAPTFL [SEQ ID NO: 154]		...A.....GG.....C.....C.CC.....T.....	2161
DNAPTTH [SEQ ID NO: 155]		.....A..A.....A.....G.....A.....C.....A.	2170
MAJORITY		CCCTCTTCGGCCCGCGCGCTACGTGCCCGAGCTCAACGCCCGGGTGAAGAGCGTGGCGGAGGGCGCGGA	
DNAPTAQ		.....C.....A.....AG.G.....C..	2234
DNAPTFL		.....T.....C.....	2231
DNAPTTH		.....AA.AA.....CA.....C.....	2240
MAJORITY		GGGCATGGCCCTTCAACATGCCCGTCCAGGGCAGCGCGCGGACCTCATGAAGCTGGCCATGGTGAAGCTC	
DNAPTAQ		.....T.....	2304
DNAPTFL		.....G.....CG..T	2301
DNAPTTH		.....C.....	2310
MAJORITY		TTGCCCGCGGCTXCAGGAAATGGGGGCCAGGATGCTCGTXCAGGTCCACGACGAGCTGGTCCCTGGAGGGCGC	
DNAPTAQ		....A...GG.....T.....	2374
DNAPTFL		.....T.....G.....TT.G.....G.....	2371
DNAPTTH		.....C..C.G..G.....C.C.....C.....G.....	2380
MAJORITY		CGAAAGAGGGGGGAGGXGGTGGCCCGCTTGGCCCAAGGAGGTGATGGAGGGGGCTCTATCCCCTGGCCGT	
DNAPTAQ		.A.....A.....CC.....GGG.....G.....	2444
DNAPTFL		...G..C.....AG...A.....GG.....CAG..	2441
DNAPTTH		..C...C.....C.....A.....G.....AA..C.....C.....	2450

FIG. 8H

MAJORITY [SEQ ID NO: 156] GCGCGCTGGAGGCTGGAGGCTGGGGATGGGGGAGGACTGGCTCTCGGGCCAAAGGAGTAG

DNAPTAQ [SEQ ID NO: 153]

.....A.....GA

2499

DNAPTFL [SEQ ID NO: 154]

.....CC.....

2496

DNAPTTH [SEQ ID NO: 155]

.....T.....GT...

2505

FIG. 9A

MAJORITY [SEQ ID NO: 159] MXAML PLFEPKGRVLLVDGHHLAYRTFFALKGLTTSRGEPVQAVYGFAKSLLKALKEDG- DAVXVVVFDAK	
TAO PRO [SEQ ID NO: 157] . RG .	H I 69
TFL PRO [SEQ ID NO: 158] .	. . . . . V . V 68
TTH PRO [SEQ ID NO: 1]] . E .	. . . . . YK . F 70
MAJORITY APSFRHEAYEAYKAGRPTPEDFPROLALI KELVDLLGLXRLEVPGYEADDVLATLAKKAEKEGYEVRI L	
TAO PRO	GG A S 139
TFL PRO	. . . . . V F R 138
TTH PRO	. . . . . FT 140
MAJORITY TADRDLYQLLSDRI AVLHPEGYLI TPWLWEKYGLRPEQWVDYRALXGDPSONLPGVKGI GEKTAXKLLX	
TAO PRO	K H D . A T . E R E 209
TFL PRO	. . . . . E I Y A I QR . IR 208
TTH PRO	. . . . . V V H E F V L K 210
MAJORITY EWGSLENLLKNLDRVKP- XXREKI XAHMEDLXL SXXLSXVRTDLPLEVDFAXRRREPDRGLRAFLELEF	
TAO PRO	. . . . . A L AI L D . K WD . AK K R 278
TFL PRO	. . . . . FOH O SL LQ . G A . A RK O . H GR T . NL 277
TTH PRO	. . . . . . . . . . . ENV K L R LE R L OG 280
MAJORITY GSSLHEFGLLXPKALEEAPWPPPEGAFVGFVLSRPEPMWAE LLALAAARXGRVHRAXDPLXGLRDLKEV	
TAO PRO	. . . . . S K D G PE . YKA A 348
TFL PRO	. . . . . G A L SF G . WE L O R G 347
TTH PRO	. . . . . A . AP K C . D A A K 350

FIG. 9B

MAJORITY [SEQ ID NO: 159] RGLLAKDLAVLALREGDLXPQDDPML LAYLLDPSNTTPEGVARRYGGWTE DAGERALLSERLFXNLXX

TAO PRO [SEQ ID NO: 157] S..... G. P..... E..... A..... A...WG 418
TFL PRO [SEQ ID NO: 158] ..I..... F. E..... A..... OT. KE 417
TTH PRO [SEQ ID NO: 1] S..... V..... AH..... HR..LK 420

MAJORITY RLEGEERLLWLYXEVEKPLSRVLAHMEATGVRLDVAYLQALSLEVAEEI RRLEEEVFRLAGHPFNLSRD

TAO PRO R...R...A..... R..... A...A..... 488
TFL PRO ..K..... E..... R..... EA. V. Q..... 487
TTH PRO K..... H..... L..... 490

MAJORITY OLERVLFDELGLPAIGKTEKTKRSTSAAVLEALREAHPI VEKI LOYRELT KLKNTYI DPLPXLVHPRTG

TAO PRO R..... S..... D. I..... 558
TFL PRO R..... DR..... A...K... 557
TTH PRO R...L...Q..... H..... V...S..... 560

MAJORITY RLHTRFNQTATATGRLSSDPNLONI PVRTPLGORI RRAFFVAEEGWXLVALDYSQIELRVLAHLSGDENL

TAO PRO I..... L..... 628
TFL PRO V...V..... 627
TTH PRO A...A..... 630

MAJORITY I RVFQEGRODI HTOTASWMF GVPPEAVDPLMRRAAKTI NFGVL YGMSAHL SOELAI PYEEAVAFIER YFO

TAO PRO E..... R..... Q..... 698
TFL PRO S...G..... G...S..... 697
TTH PRO K..... V..... 700

FIG. 9C

MAJORITY [SEQ ID NO: 159]		SFPKVRAWI EKTLEEGRRRGYVETLFGRRRYVPDLNARVKSUREAAERMAFNMPVOGTAADLMKLA MVKL	
TAO PRO [SEQ ID NO: 157]		.....E.....	768
TFL PRO [SEQ ID NO: 158]	Y	.....G.....	767
TTH PRO [SEQ ID NO: 1 ]		.....K.....	770
MAJORITY		FPRLXEMGARM LQVHDELVL EAPKXRAEXVAALAKEVMEGVYPLAVPLEVEVGXGEDWLSAKEX	
TAO PRO		.....E.....E...A..R.....	833
TFL PRO		.....Q.L.....D...R.....W.O.....L.....	831
TTH PRO		.....R.....L...QA...E...A..KA.....M.....G	835

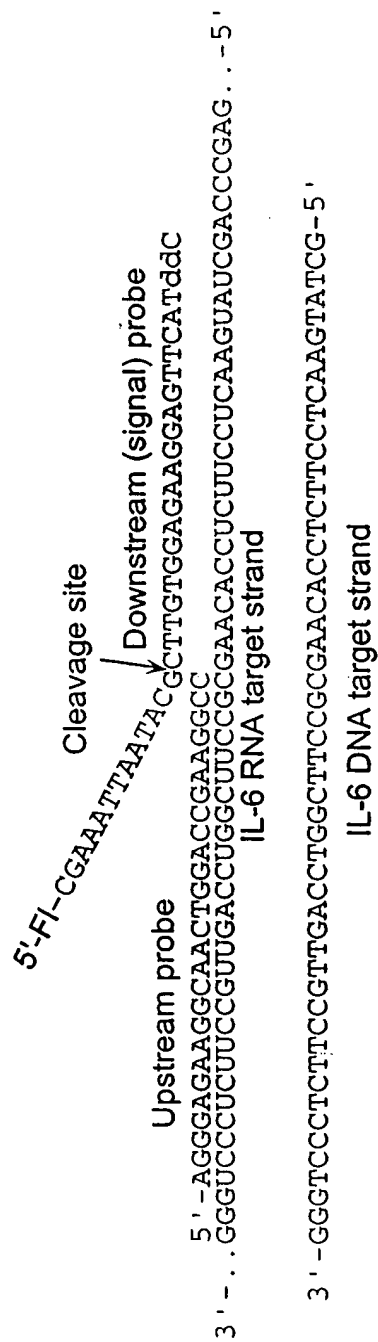


FIGURE 10

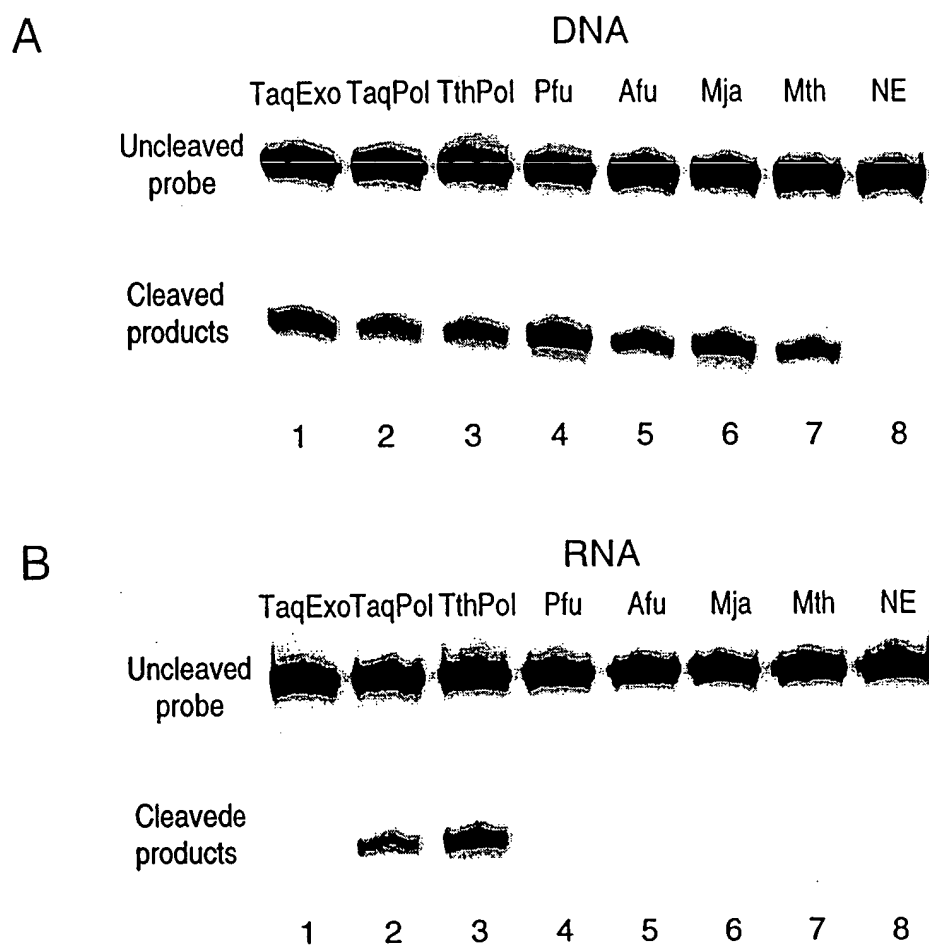


FIGURE 11

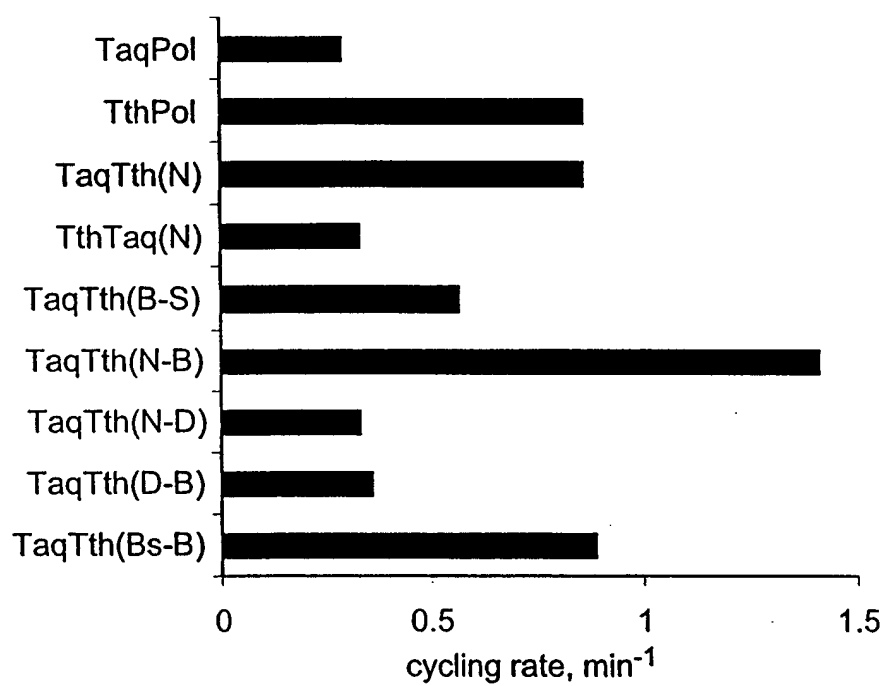


FIGURE 12

	BstBI (382)		NdeI (443)	
		390	420	440
1 TaqPol	DPSNTTPEGVARRYGGWTEEEAG	390	420	440
2 TthPol	DPSNTTPEGVARRYGGWTEEDAA	390	420	440
		400	430	450
		410	440	460
		420	450	
		430	460	
		440	470	
		450	480	
		460	490	
		470	500	
		480	510	
		490	520	
		500	530	
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		610	640	
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		630	660	
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		730	760	
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		780	810	
		790	820	
		800	830	
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		820	850	
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		870	900	
		880	910	
		890	920	
		900	930	
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		3120	3150	
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		3140	3170	
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		3420	3450	
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		3460	3490	
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		3490	3520	
		3500	3530	
		3510	3540	
		3520	3550	
		3530	3560	
		3540	3570	
		3550	3580	
		3560	3590	
		3570	3600	
		3580	3610	
		3590	3620	
		3600	3630	
		3610	3640	
		3620	3650	
		3630	3660	
		3640	3670	
		3650	3680	
		3660	3690	
		3670	3700	
		3680	3710	
		3690	3720	
		3700	3730	
		3710	3740	
		3720	3750	
		3730	3760	
		3740	3770	
		3750	3780	
		3760	3790	
		3770	3800	
		3780	3810	
		3790	3820	
		3800	3830	
		3810	3840	
		3820	3850	
		3830	3860	
		3840	3870	
		3850	3880	
		3860	3890	
		3870	3900	
		3880	3910	
		3890	3920	
		3900	3930	
		3910	3940	
		3920	3950	
		3930	3960	
		3940	3970	
		3950	3980	
		3960	3990	
		3970	4000	
		3980	4010	
		3990	4020	
</				

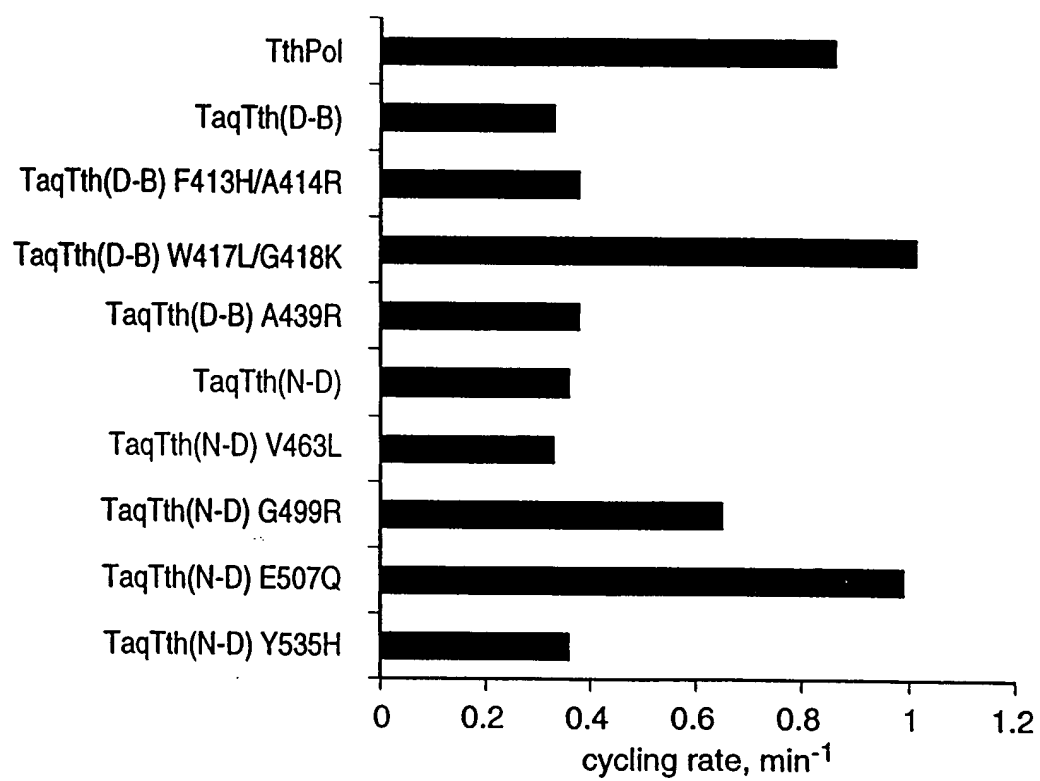


FIGURE 14

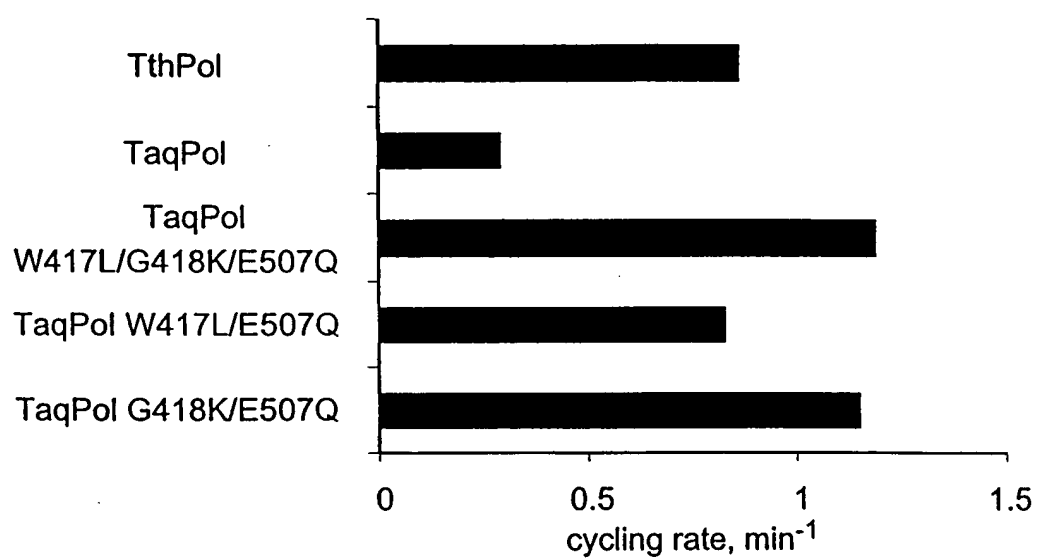


FIGURE 15


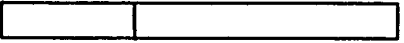


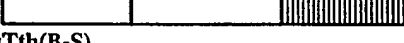
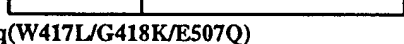
		Polymerase Activity Assays	
		<u>% Fl-labeled dUTP incorporated</u>	
		<u>RNA, p(A) or DNA, p(dA) Template</u>	
Nuclease Domain	Polymerase Domain		
		5.8 (1.00)	14.8 (1.00)
Tth			
		0.8 (0.14)	15.0 (1.01)
Taq			
		4.88 (0.84)	12.9 (0.87)
TaqTth(N)			
		0.58 (0.10)	13.3 (0.90)
TaqTth(N-B)			
		6.60 (1.14)	14.9 (1.01)
TaqTth(B-S)			
		0.42 (0.07)	12.6 (0.85)
Taq(W417L/G418K/E507Q)			

FIGURE 16



FIGURE 17

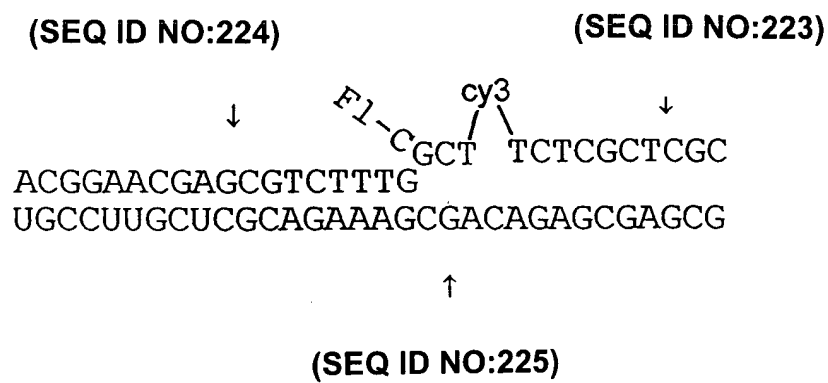


FIGURE 18A

(SEQ ID NO:224)

↓

ACGGAACGAGCGTCTTTG
TGCCTTGCTCGCAGAAAGCGACAGAGCGAGCG

↑

(SEQ ID NO:226)

(SEQ ID NO:223)

↓

Fl-CGCT cy3 TCTCGCTCGC

FIGURE 18B

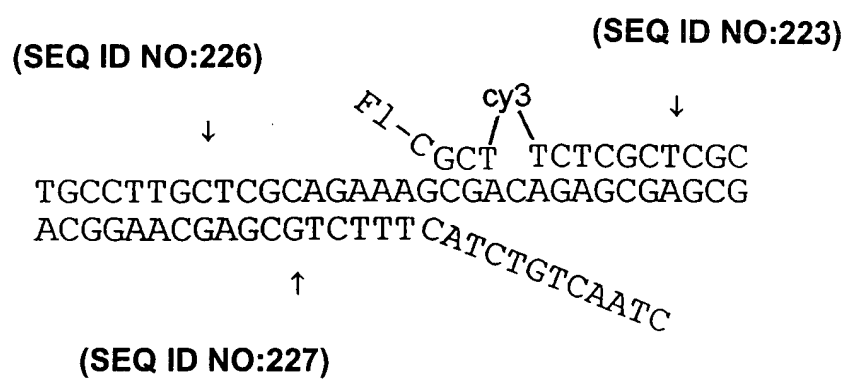


FIGURE 18C

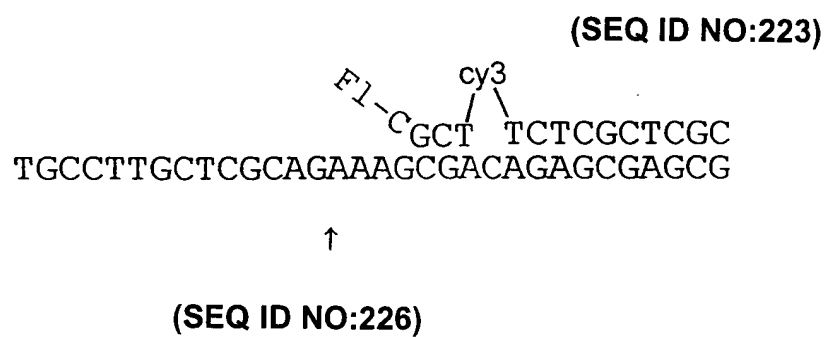


FIGURE 18D

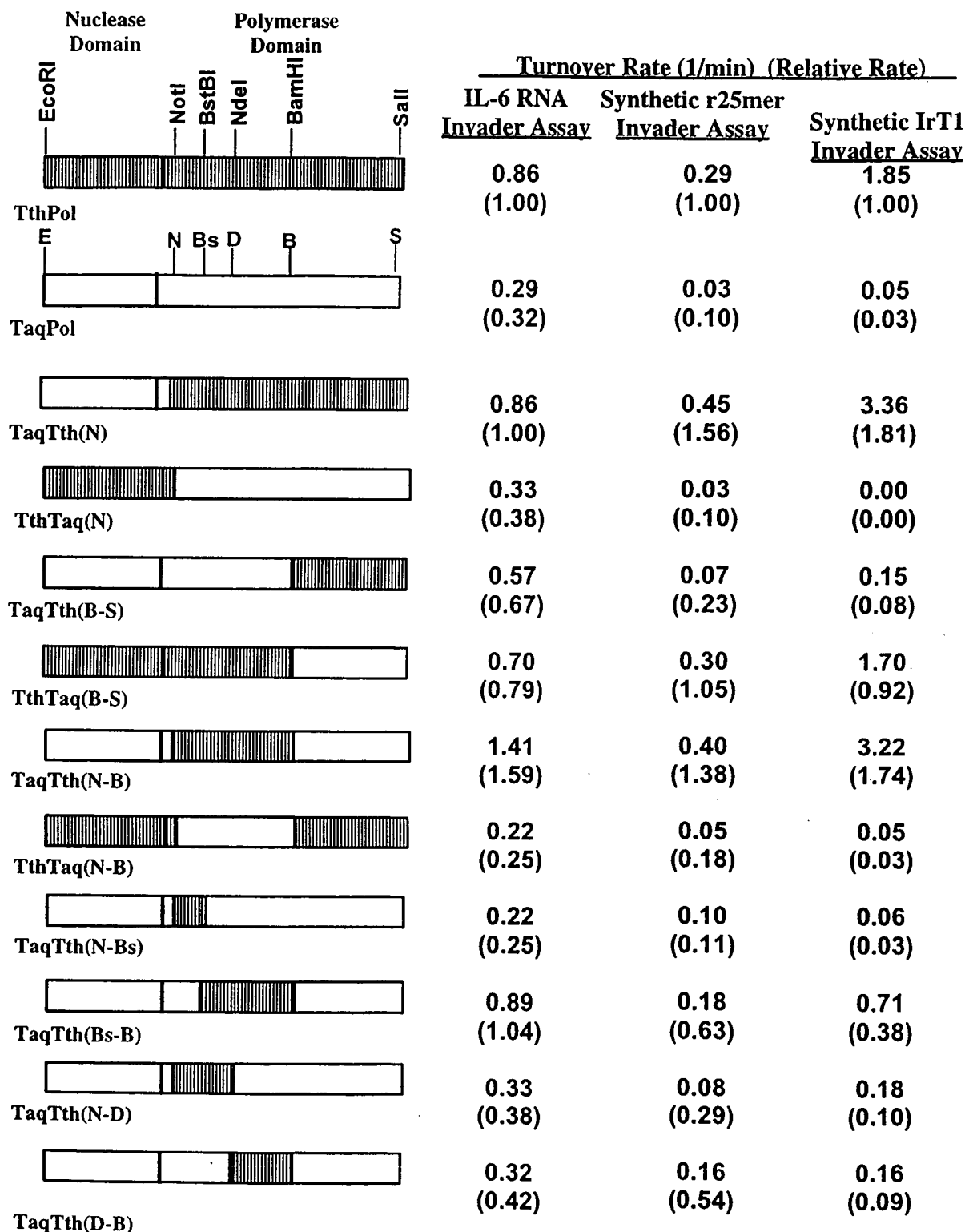


FIGURE 19

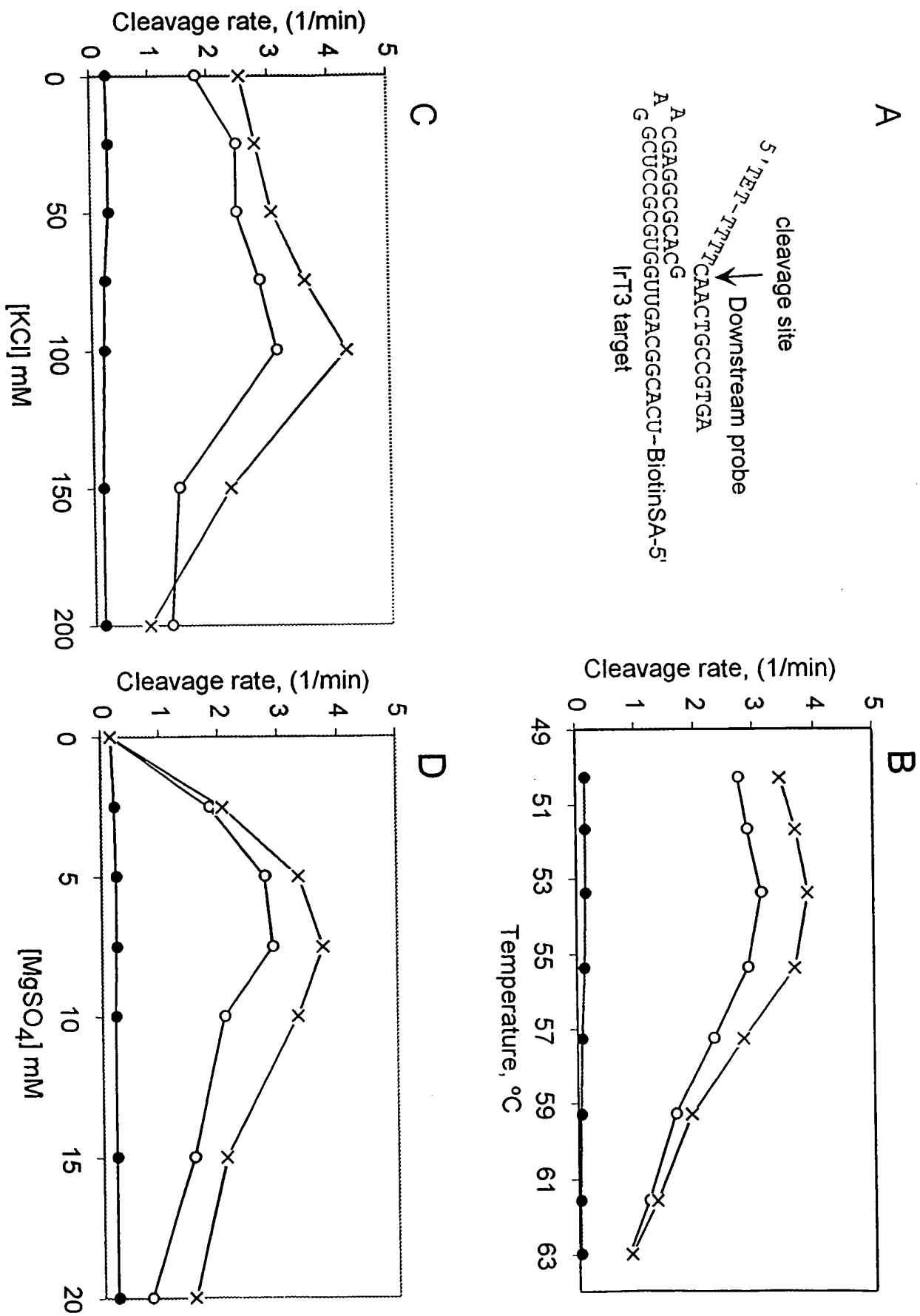


FIGURE 20

FIGURE 21

A

5'-tet-TTTTCAACTGCCGTGA
A CGAGGCGCACG
A GCTCCGCGTGGTTGACGGCACT

B

5'-tet-TTTTCAACTGCCGTGA
A CGAGGCGCACG
A GCUCCGCGUGGUUGACGGCACU-BiotinSA-5'

FIGURE 22

A

(SEQ ID NO:230)

↓

3' NH4-AATTGCTCCGCGTGGTTGACGAAGGAGGC-5'
5'-F1-TCCTTCTCAACTGCTTCCTCCG-3'

↑

(SEQ ID NO:231)

B

(SEQ ID NO:232)

↓

5'-AACGAGGCGCACCTCAAATCTCCCTT-biotin
3' NH4-AATTGCTCCGCGTGGTTGACGAAGGAGGC-5'
5'-F1-TCCTTCTCAACTGCTTCCTCCG-3'

(SEQ ID NO:230)

↓

↑

(SEQ ID NO:231)

FIGURE 23

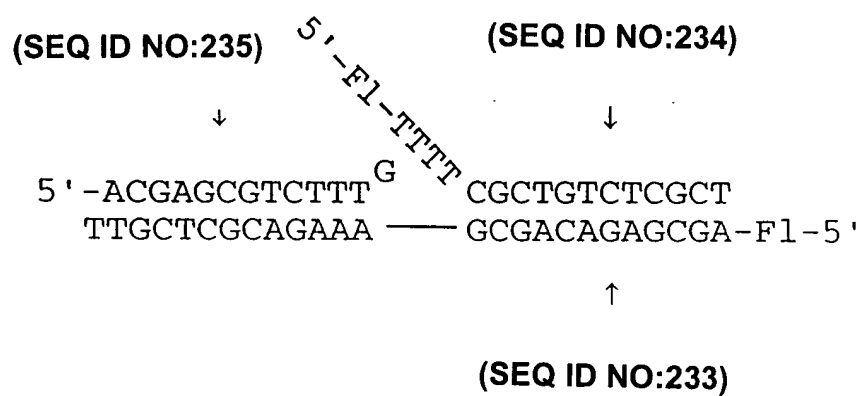
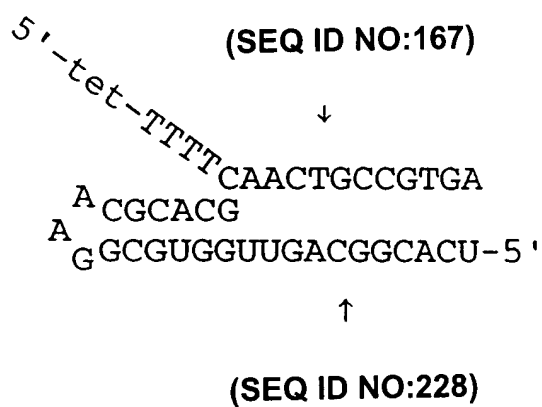


FIGURE 24

A



B

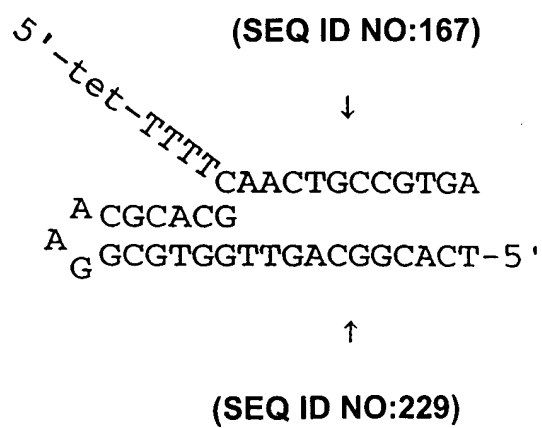


FIGURE 25

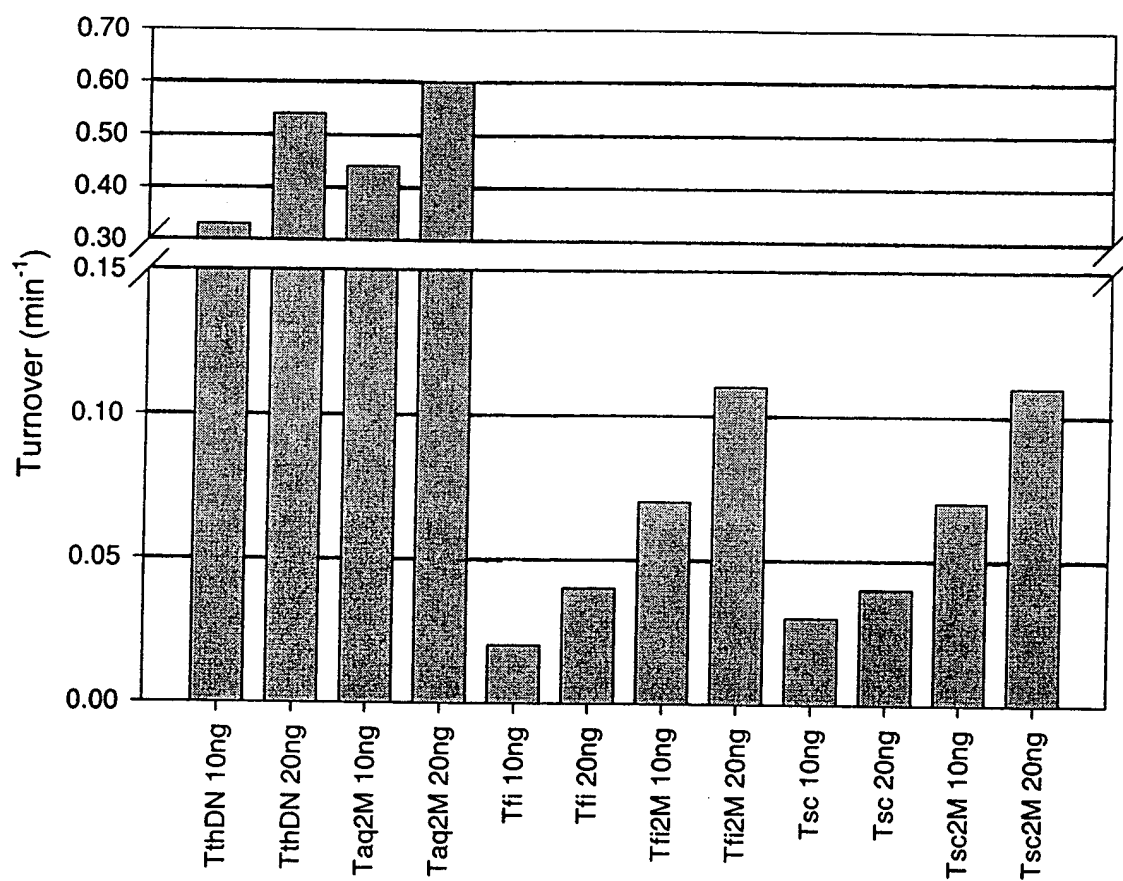


FIGURE 26

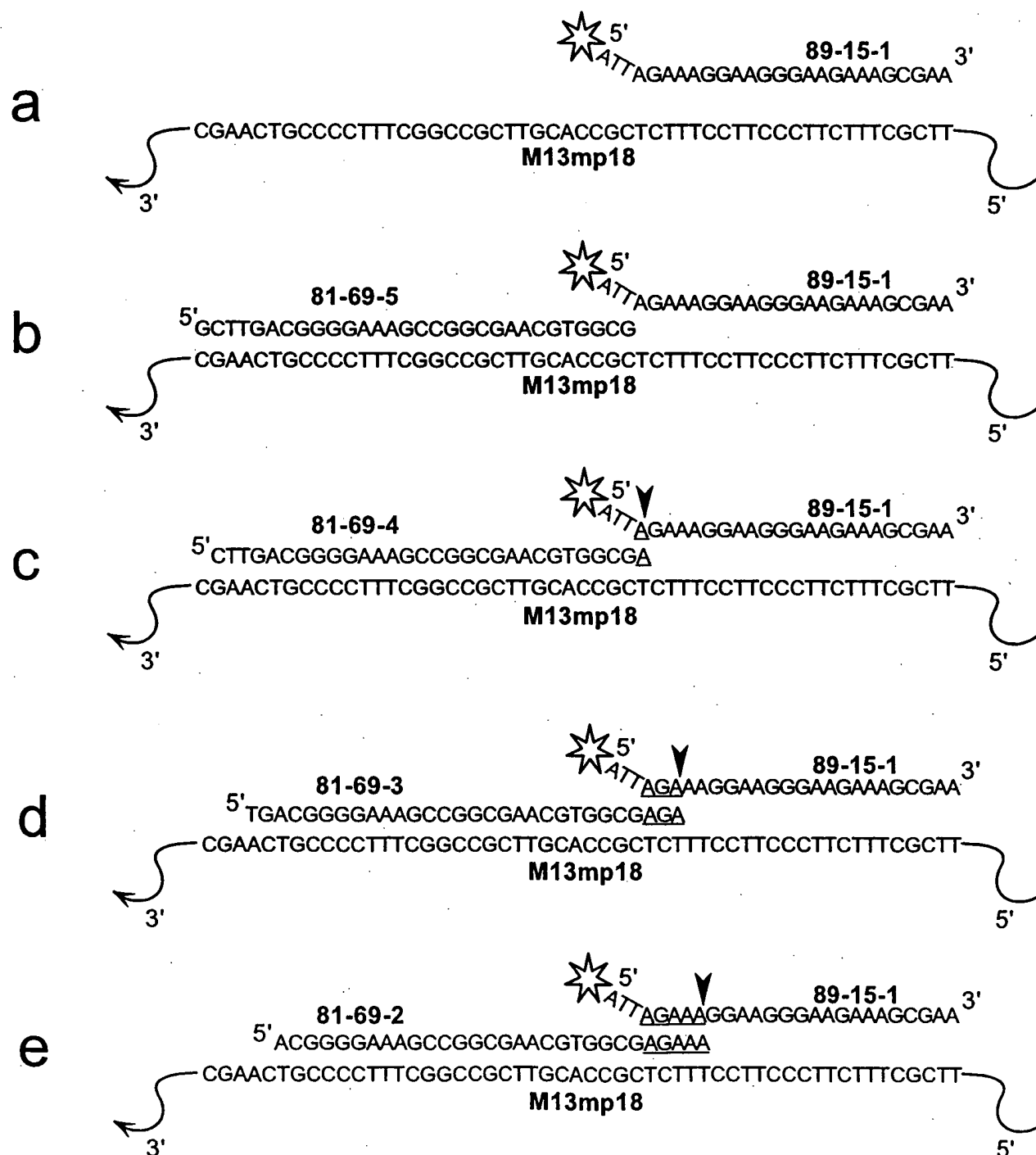


FIGURE 27

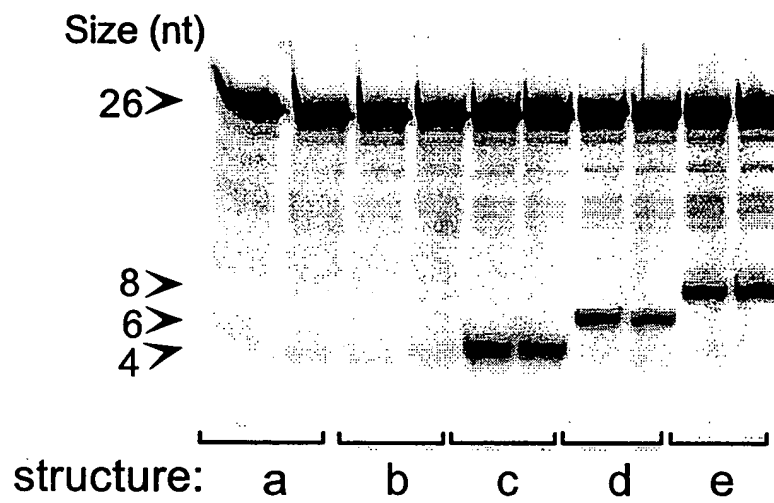


FIGURE 28

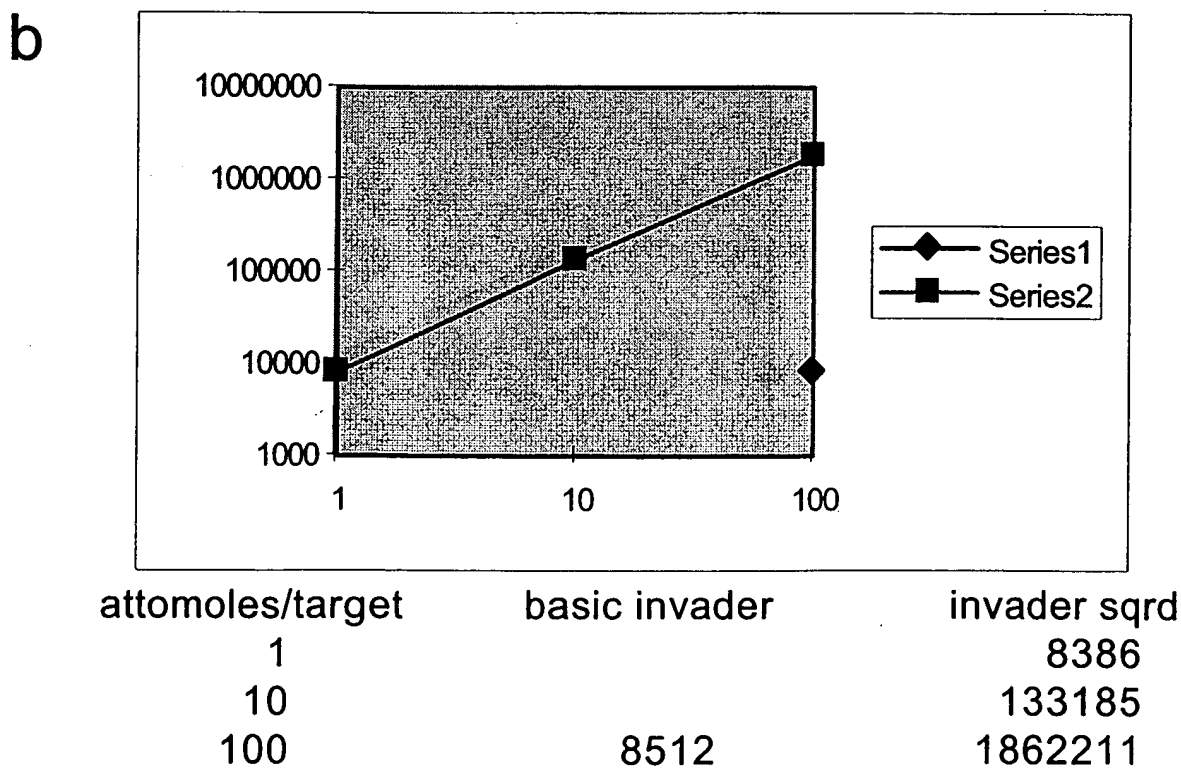
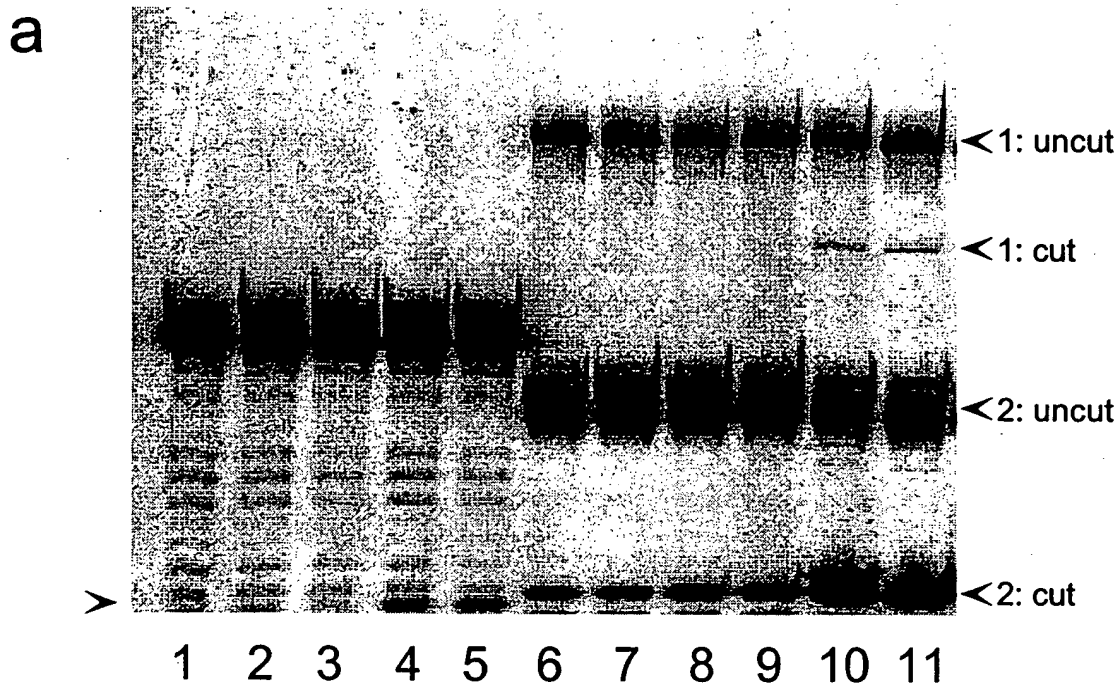


FIGURE 29

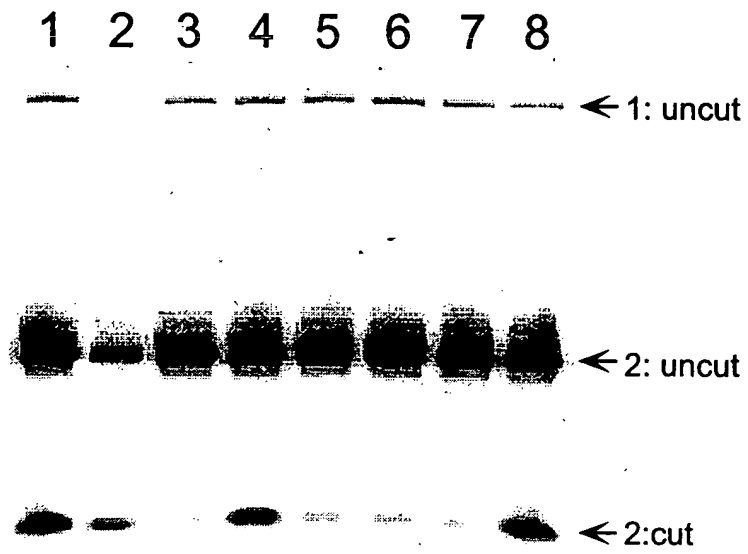


FIGURE 30

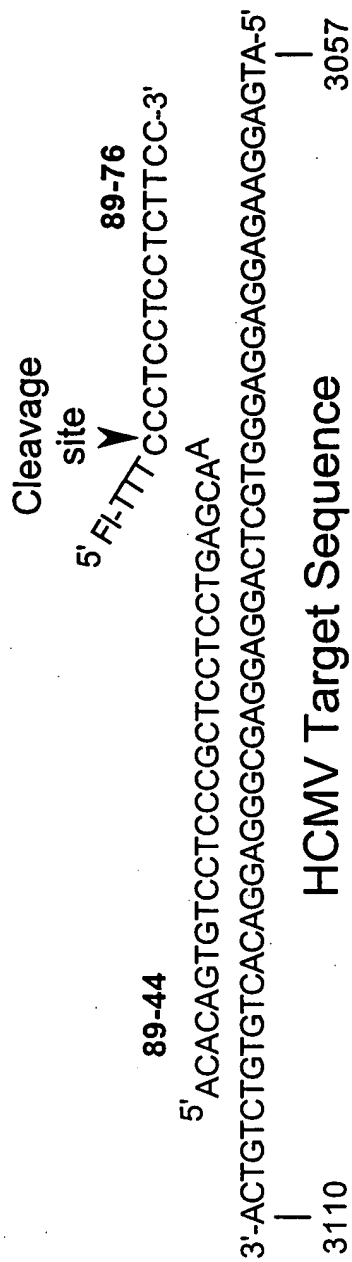


FIGURE 31

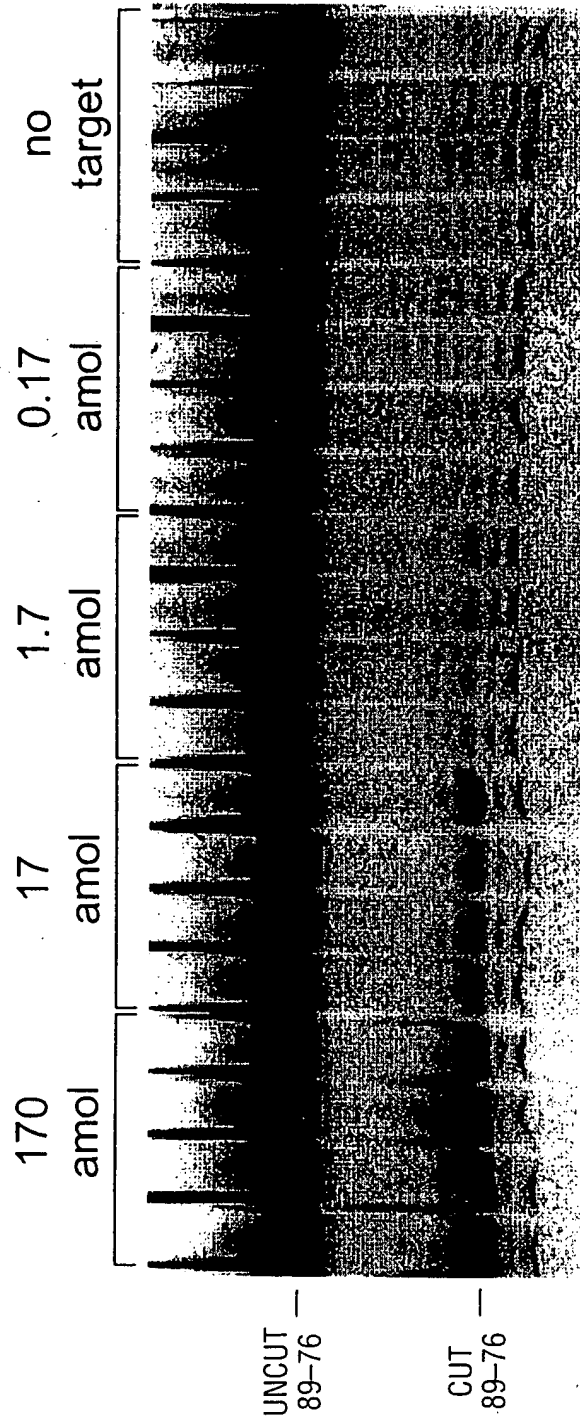


FIGURE 32

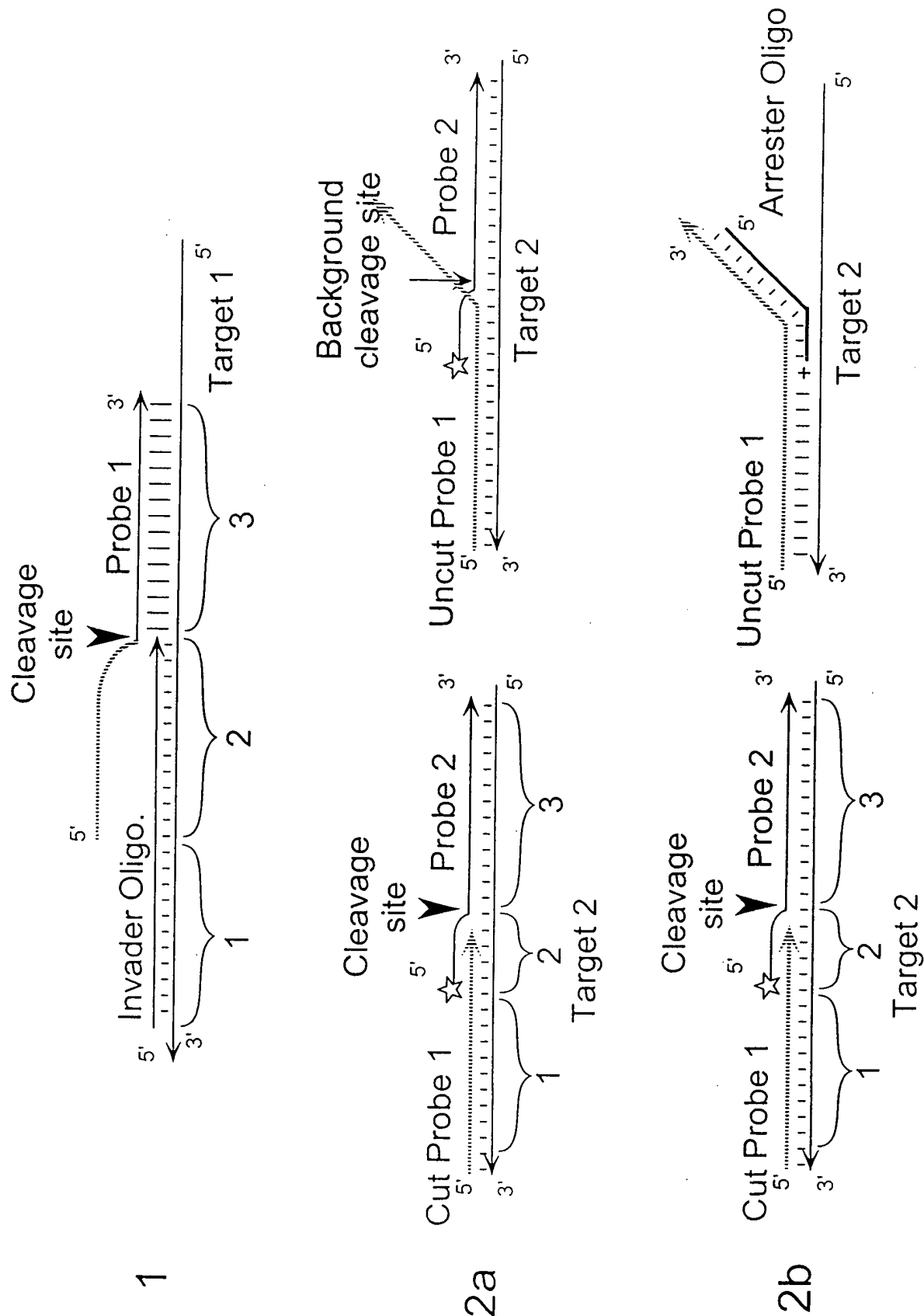


FIGURE 33

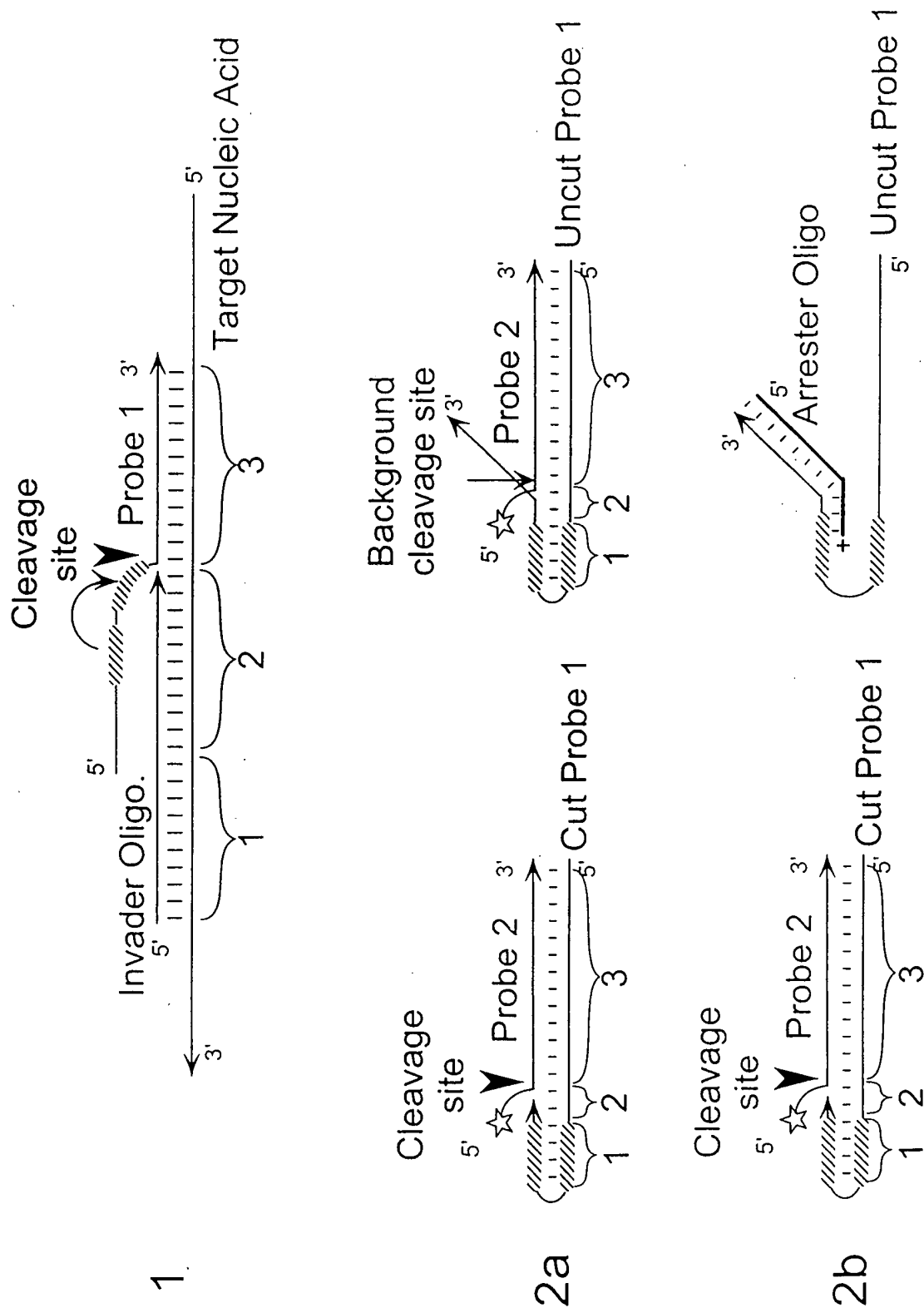


FIGURE 34

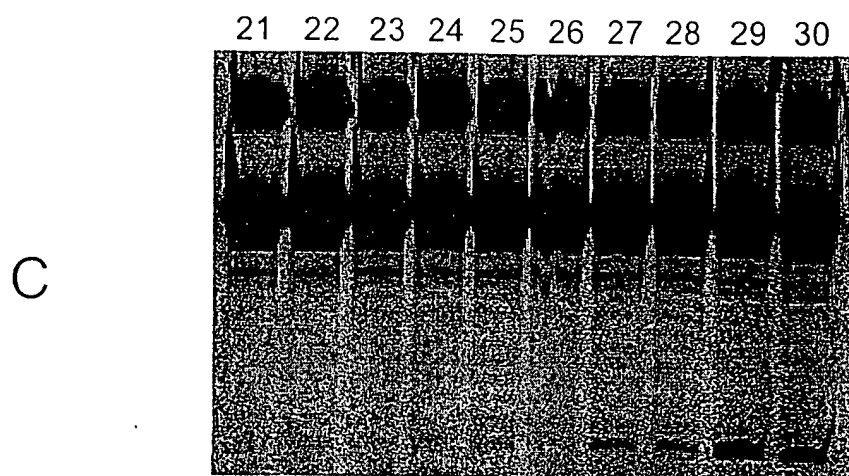
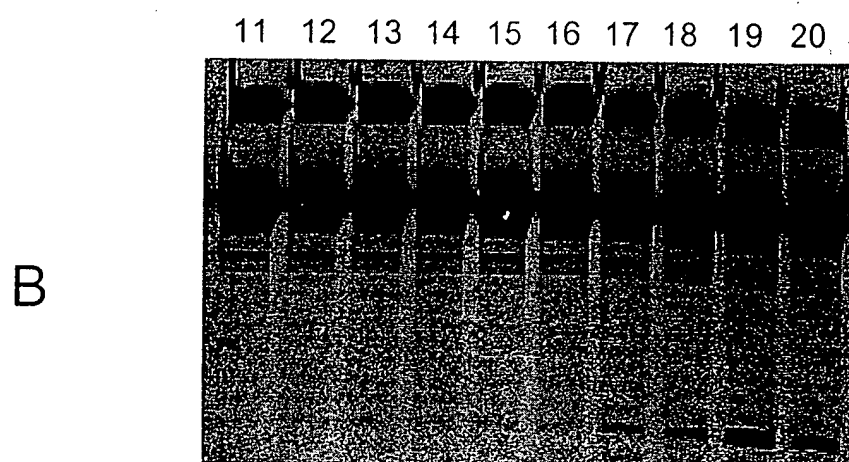
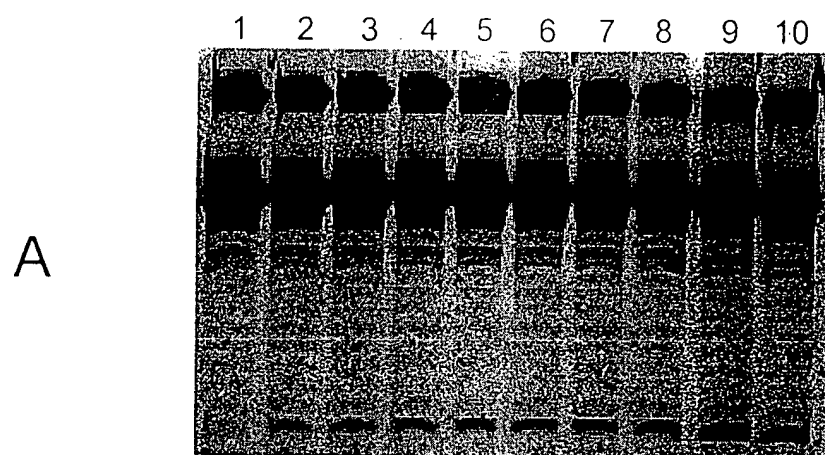


FIGURE 35A

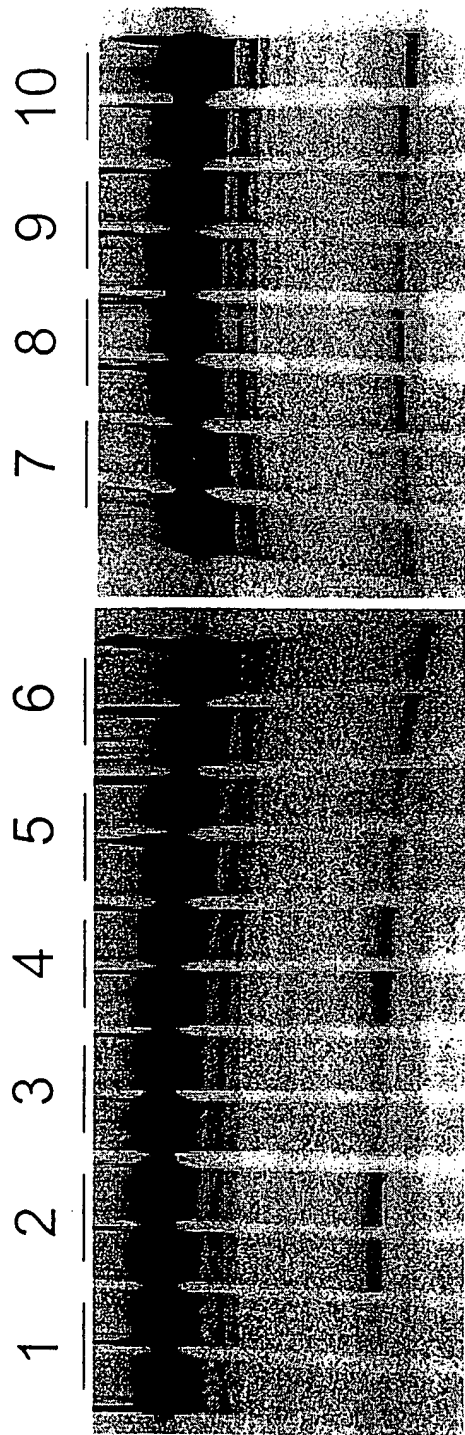


FIGURE 35B

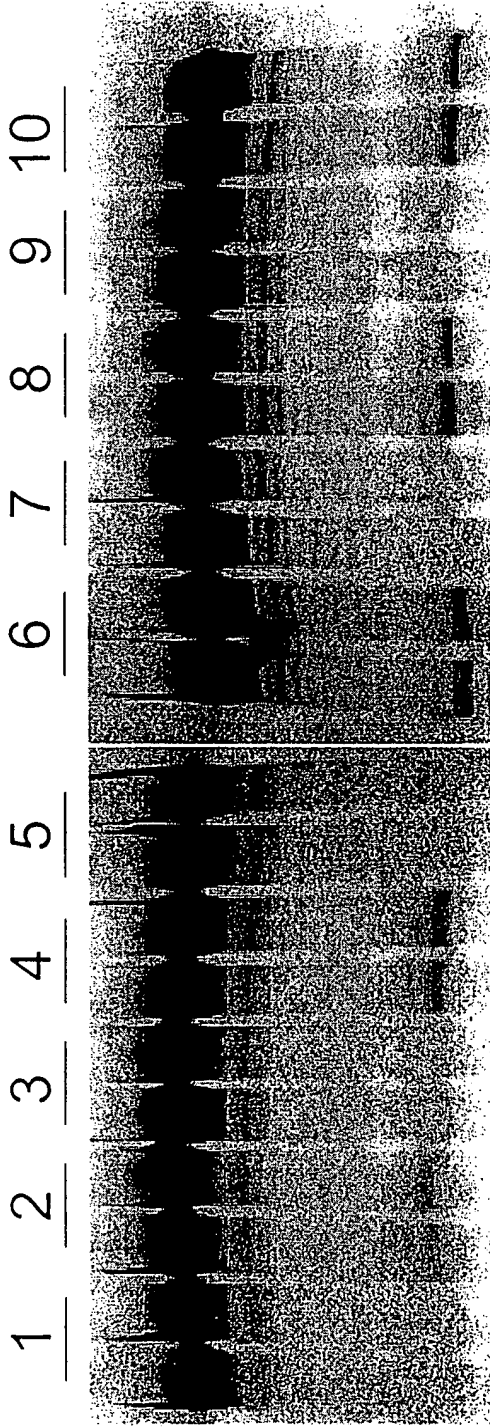


FIGURE 35C

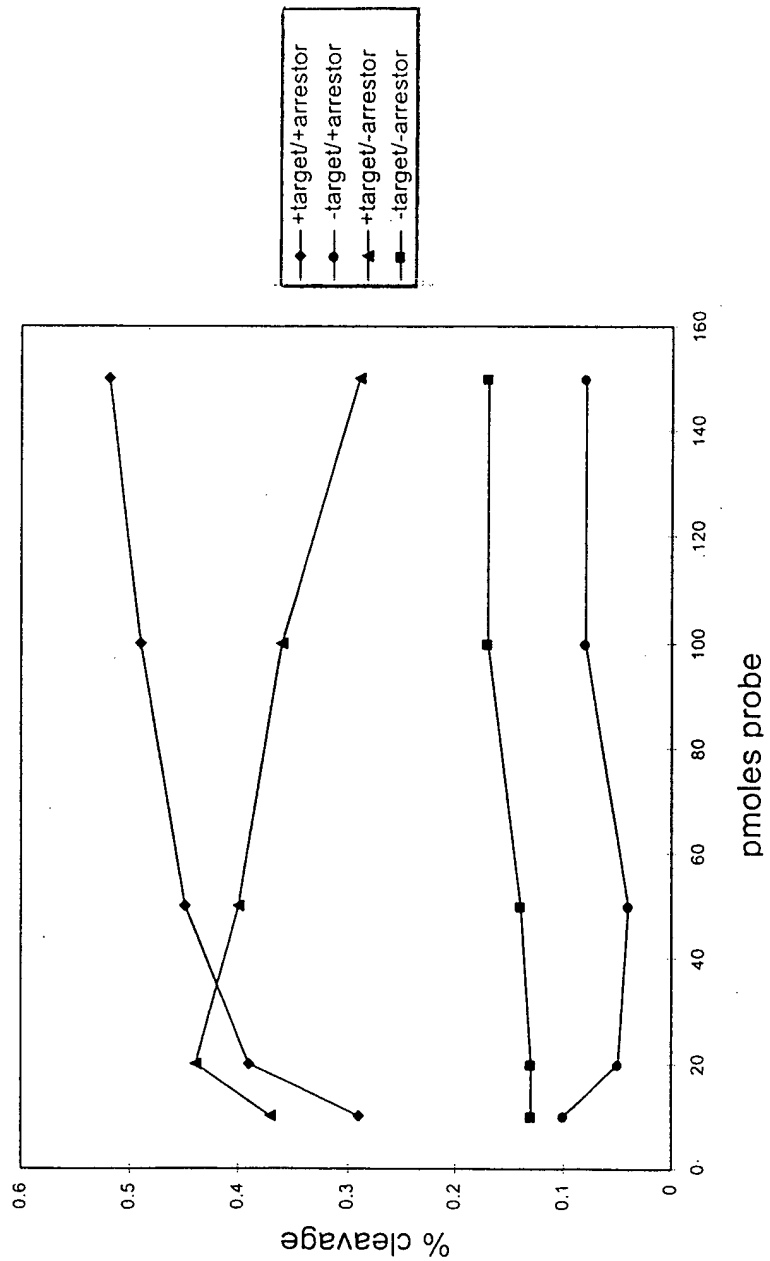


FIGURE 36A

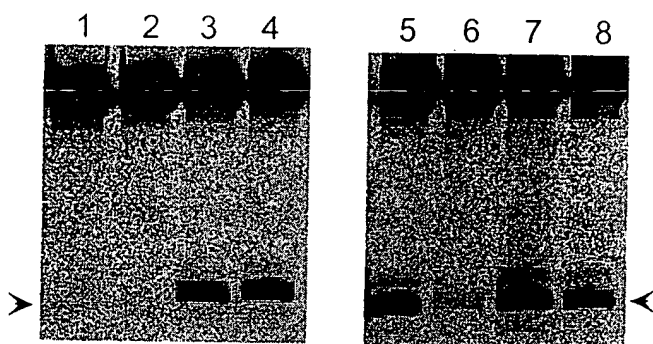


FIGURE 36B

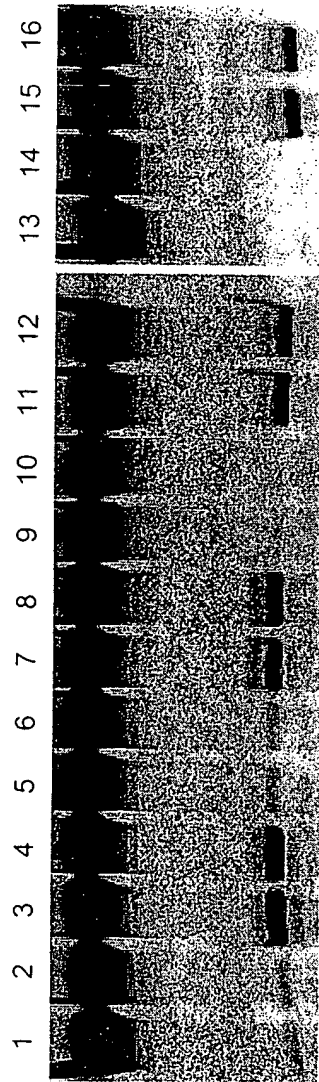


FIGURE 37A

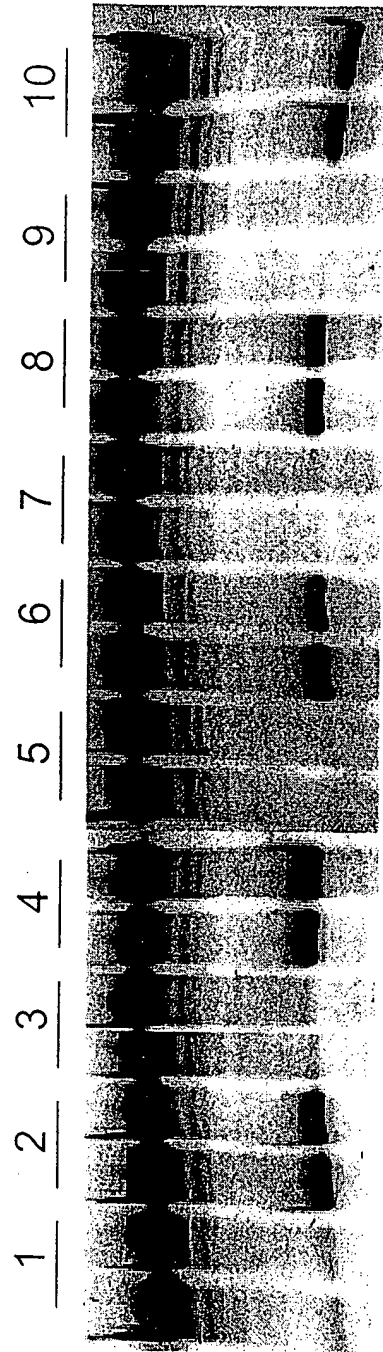


FIGURE 37B

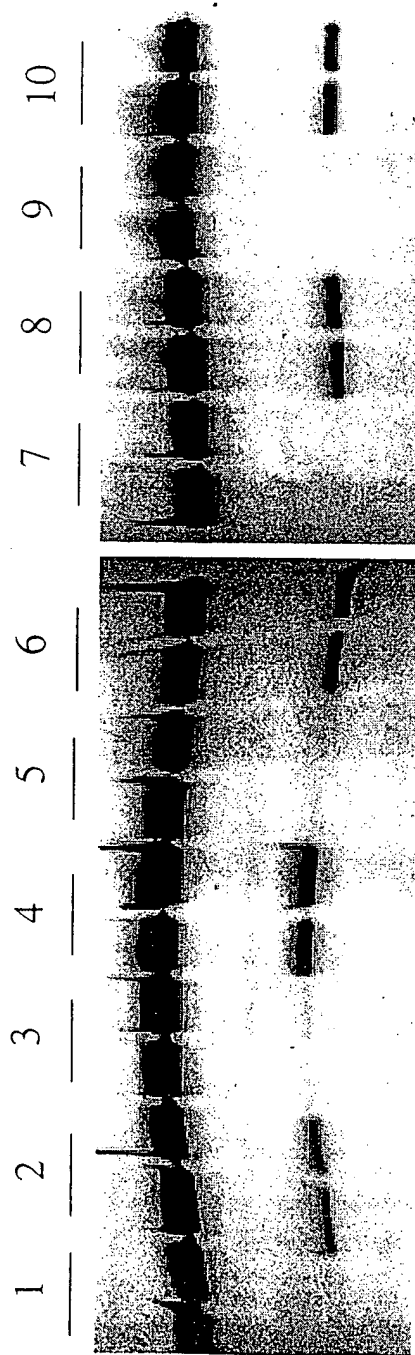


FIGURE 37C

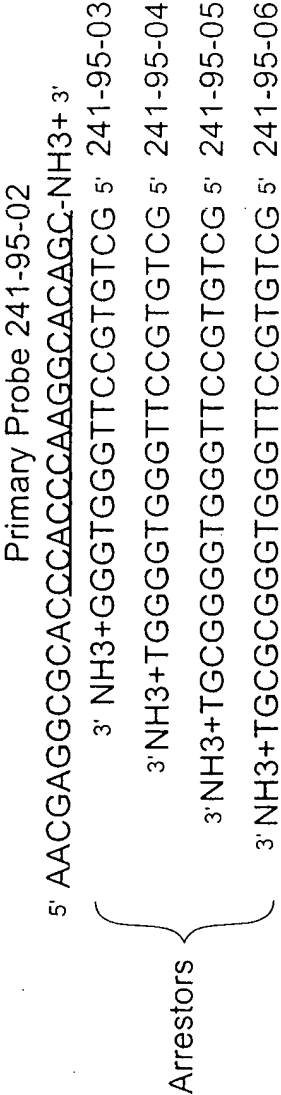


FIGURE 38

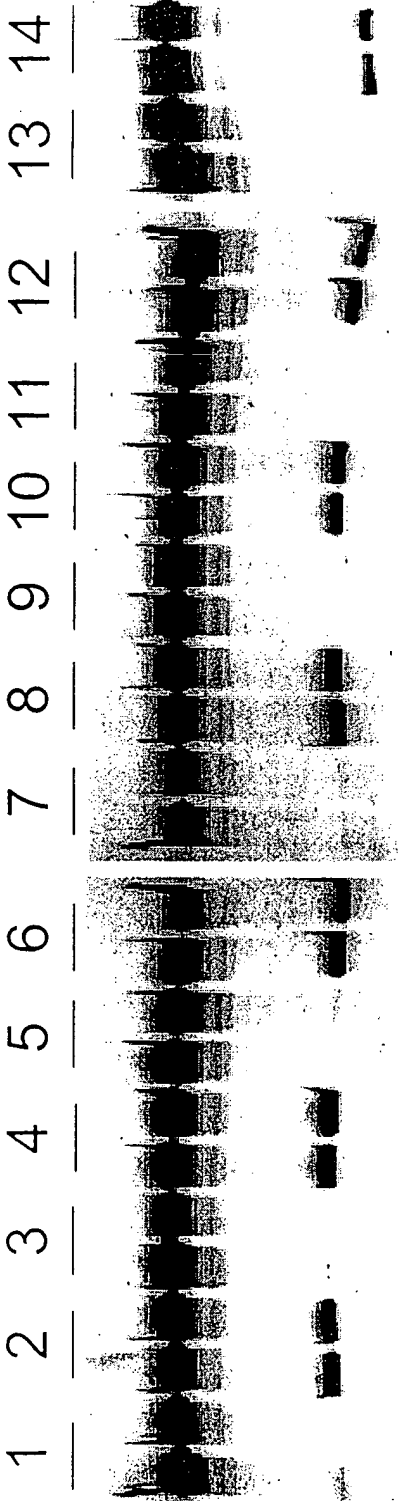


FIGURE 39

Human Ubiquitin (4506712) mRNA Single-Stranded Analysis:

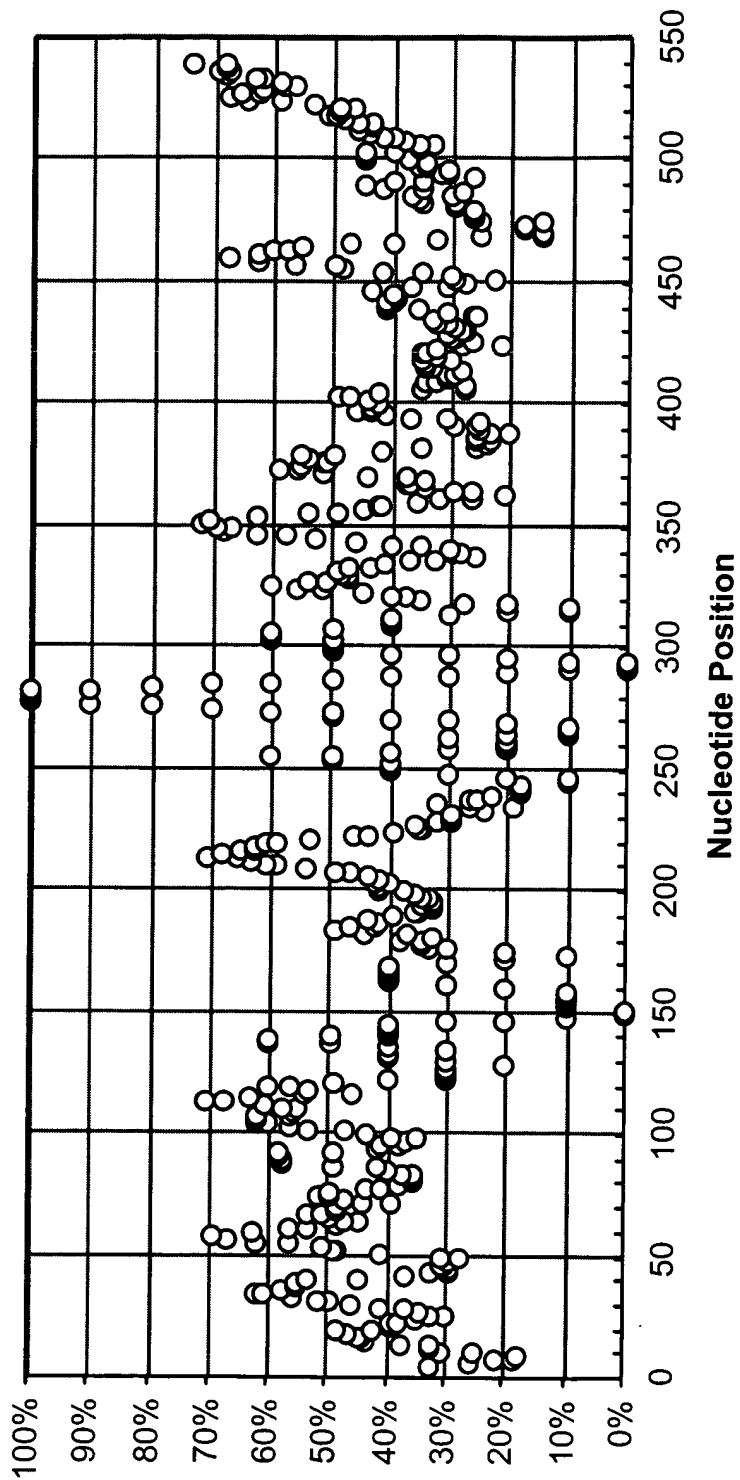


FIGURE 40

	1	2	3	4	5	6	7	8	9	10	11	12
A	Negative Control	No Target Control	Sample 1	Sample 1	Sample 9	Sample 9	Sample 17	Sample 17	Sample 25	Sample 25	Sample 33	Sample 33
B	No Target Control	No Target Control	Sample 2	Sample 2	Sample 10	Sample 10	Sample 18	Sample 18	Sample 26	Sample 26	Sample 34	Sample 34
C	Standard 1	Standard 1	Sample 3	Sample 3	Sample 11	Sample 11	Sample 19	Sample 19	Sample 27	Sample 27	Sample 35	Sample 35
D	Standard 2	Standard 2	Sample 4	Sample 4	Sample 12	Sample 12	Sample 20	Sample 20	Sample 28	Sample 28	Sample 36	Sample 36
E	Standard 3	Standard 3	Sample 5	Sample 5	Sample 13	Sample 13	Sample 21	Sample 21	Sample 29	Sample 29	Sample 37	Sample 37
F	Standard 4	Standard 4	Sample 6	Sample 6	Sample 14	Sample 14	Sample 22	Sample 22	Sample 30	Sample 30	Sample 38	Sample 38
G	Standard 5	Standard 5	Sample 7	Sample 7	Sample 15	Sample 15	Sample 23	Sample 23	Sample 31	Sample 31	Sample 39	Sample 39
H	Standard 6	Standard 6	Sample 8	Sample 8	Sample 16	Sample 16	Sample 24	Sample 24	Sample 32	Sample 32	Sample 40	Sample 40

FIGURE 41A

hUbiquitin

Primary probe
INVADER oligonucleotide
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CGC CGA GAT CAC CTT TAC ATT TTC TAT CGT NH2-3'
5'-CCT TCC TTA TCC TGG ATC TTG GCA -3'
5'-ACG ATA GAA AAT GTA AAG GTG ATC-3'
5'-RED-CTC (Z28) TTC TCA GTG CG-3'
5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:169)
(SEQ ID NO:170)
(SEQ ID NO:171)
(SEQ ID NO:172)
(SEQ ID NO:173)

m/r Ubiquitin, mouse (288C, 516C, 744C, 972C), rat (247C, 475C, 703C, 931C)

Primary probe
INVADER oligonucleotide 1
INVADER oligonucleotide 2
INVADER oligonucleotide 3
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG CCG AGA TCA CCG ATG TTG TAA TCA GAG A-NH2-3'
5'-GTG CAG GGT TGA CTC CTT CTC-3'
5'-GTG CAG GGT TGA CTC TTT CTC-3'
5'-GTG CAG GGT CGA CTC TTT CTC-3'
5'-TCT CTG ATT ACA ACA TCC GTG ATC T-3'
5'-RED-CTC (Z28) TTC TCA GTG CG-3'
5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:174)
(SEQ ID NO:175)
(SEQ ID NO:176)
(SEQ ID NO:177)
(SEQ ID NO:178)
(SEQ ID NO:172)
(SEQ ID NO:173)

r/m GAPDH, rat (150C), mouse(166C)

Primary probe
INVADER oligonucleotide
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CGC CGA GAT CAC GTA GTT GAG GTC AAT GA-NH2-3'
5'-GAA TCA TAC TGG AAC ATG TAG ACC ATC-3'
5'-TCA TTG ACC TCA ACT ACG TGA TCT-3'
5'-RED-CTC (Z28) TTC TCA GTG CG-3'
5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:179)
(SEQ ID NO:180)
(SEQ ID NO:181)
(SEQ ID NO:172)
(SEQ ID NO:173)

hGAPDH, 516C

Primary probe
INVADER oligonucleotide
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG CCG AGA TCA CGA TGA TCT TGA GGC T-NH2-3'
5'-TGG TGC AGG AGG CAT TGC TC-3'
5'-CAG CCT CAA GAT TAC CGT GAT CT-3'
5'-RED-CTC (Z28) TTC TCA GTG CG-3'
5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:182)
(SEQ ID NO:183)
(SEQ ID NO:184)
(SEQ ID NO:172)
(SEQ ID NO:173)

FIGURE 41B

hTGF- β		
Primary probe	5'-CCG TCA CGC CTC CTC CAC GGC TC -3'	(SEQ ID NO:185)
INVADER oligonucleotide	5'-AGG CGA AAG CCC TCA ATT TCC CA-3'	(SEQ ID NO:186)
Stacker	5'-AAC CAC TGC CGC ACA-3'	(SEQ ID NO:187)
ARRESTOR oligonucleotide	5'-GAG CCG TGG AGG AGG CG-3'	(SEQ ID NO:188)
FRET Probe	5'-FL-CAC-(Z28)-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)
hMCP-1		
Primary probe	5'-CCG TCA CGC CTC CTT CGG AGT TTG GG NH2 -3'	(SEQ ID NO:191)
INVADER oligonucleotide	5'-GGG TTG TGG AGT GAG TGT TCA AGT A -3'	(SEQ ID NO:192)
Stacker	NO STACKER	
ARRESTOR oligonucleotide	5'-GGG-AAA-CTC-CGA-AGG-AGG-CG-3'	(SEQ ID NO:193)
FRET Probe	5'-FL-CAC-Z28-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)
hTNF- α		
Primary probe	5'-CCG TCA CGC CTC TCT GAC TGC CA NH2-3'	(SEQ ID NO:194)
INVADER oligonucleotide	5'-TTG TCA CTC GGG GTT CGA GAA GAT GAA-3'	(SEQ ID NO:195)
Stacker	5'-GGG CCA GAG GG-3'	(SEQ ID NO:196)
ARRESTOR oligonucleotide	5'-AGG CAG TCA GAG AGG CG-3'	(SEQ ID NO:197)
FRET Probe	5'-FL-CAC-Z28-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)
hIL-6		
Primary probe	5'-CCG TCA CGC CTC CTC CTC ATT GAA TTNH2-3'	(SEQ ID NO:198)
INVADER oligonucleotide	5'-CCA AAA GTC CAG TGA TGA TTT TCA CCA GGC AAG TA -3'	(SEQ ID NO:199)
Stacker	5'-CAG ATT GGA AGC ATC CAT CT-3'	(SEQ ID NO:200)
ARRESTOR oligonucleotide	5'-GAT TCA ATG AGG AGG AGG C-3'	(SEQ ID NO:201)
FRET Probe	5'-FL-CAC-(Z28)-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)

FIGURE 41C

hIL-1 β

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CAT CTG TTT AGG NH2-3'
5'-CAG GTC CTG GAA GGA GCA CTT A-3'
5'-GCC ATC AGC TTC TTT GTT CTT GTC ATC-3'
5'-GCC CTA AAC AGA TGG AGG CG-3'
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'
(SEQ ID NO:202)
(SEQ ID NO:203)
(SEQ ID NO:204)
(SEQ ID NO:205)
(SEQ ID NO:189)
(SEQ ID NO:190)

hIL-2

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC CAG TTG TAG NH2-3'
5'-AAA ATC ATC TGT AAA TCC AGC AGT AAA TGA -3'
5'-CTG TGT TTT CTT TGT AGA AC -3'
5'-CTA CAA CTG GAG GAG GC -3'
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'
(SEQ ID NO:206)
(SEQ ID NO:207)
(SEQ ID NO:208)
(SEQ ID NO:209)
(SEQ ID NO:189)
(SEQ ID NO:190)

hIL-8

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC TCA GTT CT-NH2-3'
5'-GTG TGG TCC ACT CTC AAT CAA -3'
5'-TTG ATA AAT TTG GGG TGG AAA GGT TTG GA-3'
5'-AGA ACT GAG AGG AGG CG-3'
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'
(SEQ ID NO:210)
(SEQ ID NO:211)
(SEQ ID NO:619)
(SEQ ID NO:620)
(SEQ ID NO:189)
(SEQ ID NO:190)

hIL-10

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CAA ACT CAC TCA T-NH2-3'
5'-GTC ATG TAG GCT TCT ATG TAG TTG ATG AAG ATG TA-3'
5'-GGC TTT GTA GAT GCC TTT CTC TTG GA-3'
5'-ATG AGT GAG TTT GGT GCG-3'
5'-FL-CAC (Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'
(SEQ ID NO:621)
(SEQ ID NO:622)
(SEQ ID NO:623)
(SEQ ID NO:624)
(SEQ ID NO:189)
(SEQ ID NO:625)

FIGURE 41D

hIL-4

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CTT GGA GGC A-NH2-3'
5'-AAG GTT TCC TTC TCA GTT GTG TTA-3'
5'-GCA AAG ATG TCT GTT ACG GTC AAC TC-3'
5'-TGC CTC CAA GGT GCG C-3'
5'-FL-CAC (Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:626)
(SEQ ID NO:627)
(SEQ ID NO:628)
(SEQ ID NO:629)
(SEQ ID NO:189)
(SEQ ID NO:625)

hIFN- γ

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CTT CAA AAT GCC TAA-NH2-3'
5'-TGT CAC TCT CCT CTT TCC AAT TA-3'
5'-GAA AAG AGT TCC ATT ATC CGC TAC ATC TG-3'
5'-TTA GGC ATT TTG AAG GTG CGC-3'
5'-FL-CAC (Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:630)
(SEQ ID NO:631)
(SEQ ID NO:632)
(SEQ ID NO:633)
(SEQ ID NO:189)
(SEQ ID NO:625)

FIGURE 41E

hCYP 1A2, 1193G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CGT TGT GTC CC-NH2-3'
5'-GGG ATG TAG AAG CCA TTC AGA-3'
5'-TTG TTG TGC TGT GGG GGA TG-3'
5'-GGG ACA CAA CGG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:634)
(SEQ ID NO:635)
(SEQ ID NO:636)
(SEQ ID NO:637)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 2B6, 343G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CAC CAT ATC CC-NH2-3'
5'-CCA GCG GTT TCC ATT GGC AAA GAT CAA-3'
5'-CGG AAG AAT GGG TCG ACC ATG-3'
5'-GGG ATA TGG TGG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:638)
(SEQ ID NO:639)
(SEQ ID NO:640)
(SEQ ID NO:641)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 2C19, 223G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CGT TCC AGG C-NH2-3'
5'-CAT ATC CAT GCA GCA CCA CCA TGA-3'
5'-CAA AAT ACA GAG TGA ACA CAG GGC C-3'
5'-GCC TGG AAC GGT GCG C-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:642)
(SEQ ID NO:643)
(SEQ ID NO:644)
(SEQ ID NO:645)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 2C9, 1554T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC ATG GAT AAT GCC C-NH2-3'
5'-CAG GTG AGA AAA GGC ATT ACA GAT AGT GAA AGC-3'
5'-CAG AGG AAA GAG AGC TGC AGG G-3'
5'-GGG CAT TAT CCA TGA GGC G-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:646)
(SEQ ID NO:647)
(SEQ ID NO:648)
(SEQ ID NO:649)
(SEQ ID NO:189)
(SEQ ID NO:190)

FIGURE 41F

hCYP 2D6, 1316G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CCT GCT GAG AAA-NH2-3'
5'-CCC GAG GCA TGC ACG GCG GA-3'
5'-GGC AGG AAG GCC TCC-3'
5'-TTT CTC AGC AGG GAG GCG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:650)
(SEQ ID NO:651)
(SEQ ID NO:652)
(SEQ ID NO:653)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 3A4, 309C

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC GCC CCA CA-NH2-3'
5'-CAG CAC AGG CTG TTG ACC ATC ATA AAA C-3'
5'-CTT TTC CAT ACT TTT TAT GAC ATT C-3'
5'-TGT GGG GCG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:654)
(SEQ ID NO:655)
(SEQ ID NO:656)
(SEQ ID NO:657)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 3A5 v2, 323T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC AGT TGA CCT TC-NH2-3'
5'-GTG ATG GCC AGC ACA GGG C-3'
5'-ATA CGT TCC CCA CAT TTT TC-3'
5'-TGA AGG TCA ACT GTG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:658)
(SEQ ID NO:659)
(SEQ ID NO:660)
(SEQ ID NO:661)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 3A7, 231C

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC GTC ATA AAT ACC CC-NH2-3'
5'-GCC AGC ATA GGC TGT TGA CAC-3'
5'-AGA CTT TTC TAT ACT TTT TAT AAC ATT C-3'
5'-GGG GTA TTT ATG ACG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:662)
(SEQ ID NO:663)
(SEQ ID NO:664)
(SEQ ID NO:665)
(SEQ ID NO:189)
(SEQ ID NO:625)

FIGURE 41G

h/rCYP 1A1 (human: 937, rat 863G)

Primary probe
INVADER oligonucleotide (h)
INVADER oligonucleotide (r)
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTG TCT GTG AT-NH2-3'
5'-TCC TGA CAG TGC TCA ATC AGG A-3'
5'-TCC TGA CAA TGC TCA ATG AGG A-3'
5'-GTC CCG GAT GTG GCC C-3'
5'-ATC ACA GAC AGG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:666)
(SEQ ID NO:667)
(SEQ ID NO:668)
(SEQ ID NO:669)
(SEQ ID NO:670)
(SEQ ID NO:189)
(SEQ ID NO:190)

h/rCYP 1A2 (813C/819C)

Primary probe
INVADER oligonucleotide (h)
INVADER oligonucleotide (r)
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC GGA CTG TTT TCT GC-NH2-3'
5'-CTT GTC AAA GTC CTG ATA GTG CTC CTC-3'
5'-CTT GTT GAA GTC TTG ATA GTG TTC CTC-3'
5'-GCA GAA AAC AGT CCG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:671)
(SEQ ID NO:672)
(SEQ ID NO:673)
(SEQ ID NO:674)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 2B1, 1017T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC ACT GCG GTC AT-NH2-3'
5'-GTG GAT AAC TGC ATC AGT GTA TGG CAT TTT C-3'
5'-CAA GGG TTG GTA GCC TGT GTG AGC C-3'
5'-ATG ACC GCA GTG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:675)
(SEQ ID NO:676)
(SEQ ID NO:677)
(SEQ ID NO:678)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 2B2, 162T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC AGA GCC AAT CAC-NH2-3'
5'-CGA TCA TCA AGG GAT GGT GGC CTG TGC-3'
5'-CTG ATC AAT CTC CTT TTG GAC TTT CTC TGC G-3'
5'-GTG ATT GGC TCT GAG GCG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:679)
(SEQ ID NO:680)
(SEQ ID NO:681)
(SEQ ID NO:682)
(SEQ ID NO:189)
(SEQ ID NO:190)

FIGURE 41H

rCYP 2E1, 969G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC TTC AAT TTC TG-NH2-3'
5'-CCC TGT CAA TTT CTT CAT GAA GTT TA-3'
5'-GGT ATT TCA TGA GGA TCA GGA GC-3"
5'-CAG AAA TTG AAG AGG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:683)
(SEQ ID NO:684)
(SEQ ID NO:685)
(SEQ ID NO:686)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 3A1, 164G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CGG GTC CCA-NH2-3'
5'-TCC CCT GTT TCT TGA AAA GTC CAT GTG TGA-3'
5'-AAT CCG TAG AGG AGC ACC AGG-3'
5'-TGG GAC CCG GTG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:687)
(SEQ ID NO:688)
(SEQ ID NO:689)
(SEQ ID NO:690)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 3A2, 1091G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC GGC AGG-NH2-3'
5'-CAC AAT ATC GTA GGT AGG AGG TGC CTT AA-3'
5'-GCC CCA TCG ATC TCC TCC-3'
5'-CCT GCC GAG GAG GCG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:691)
(SEQ ID NO:692)
(SEQ ID NO:693)
(SEQ ID NO:694)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 4A1, 296A

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC TAG GCT TTG CT-NH2-3'
5'-TTC ATG TAG TCA GGG TCA TAG ACA ATT AAG A-3'
5'-TCC CCA GAA CCA TCG AGG AAA GG-3'
5'-AGC AAA GCC TAG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:695)
(SEQ ID NO:696)
(SEQ ID NO:697)
(SEQ ID NO:698)
(SEQ ID NO:189)
(SEQ ID NO:625)

FIGURE 41I

rCYP 4A2

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC AGA AGG CCC CTT-NH2-3'
5'-CCT TGA ACA GCA CCA GAA ATA GAC TGA GCA C-3'
5'-GGA AGA ACC CAG AGA CAC CAT CC-3'
5'-AAG GGG CCT TCT GTG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:699)
(SEQ ID NO:700)
(SEQ ID NO:701)
(SEQ ID NO:702)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 4A3, 1235C

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC GTT GTG ATA CCT T-NH2-3'
5'-GAT GAA GGC CAT AAA TTA AAA TTG TGC-3'
5'-TGG GTA TGG AAC GTC C-3'
5'-AAG GTA TCA CAA CGT GCG C-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:703)
(SEQ ID NO:704)
(SEQ ID NO:705)
(SEQ ID NO:706)
(SEQ ID NO:189)
(SEQ ID NO:625)

FIGURE 42

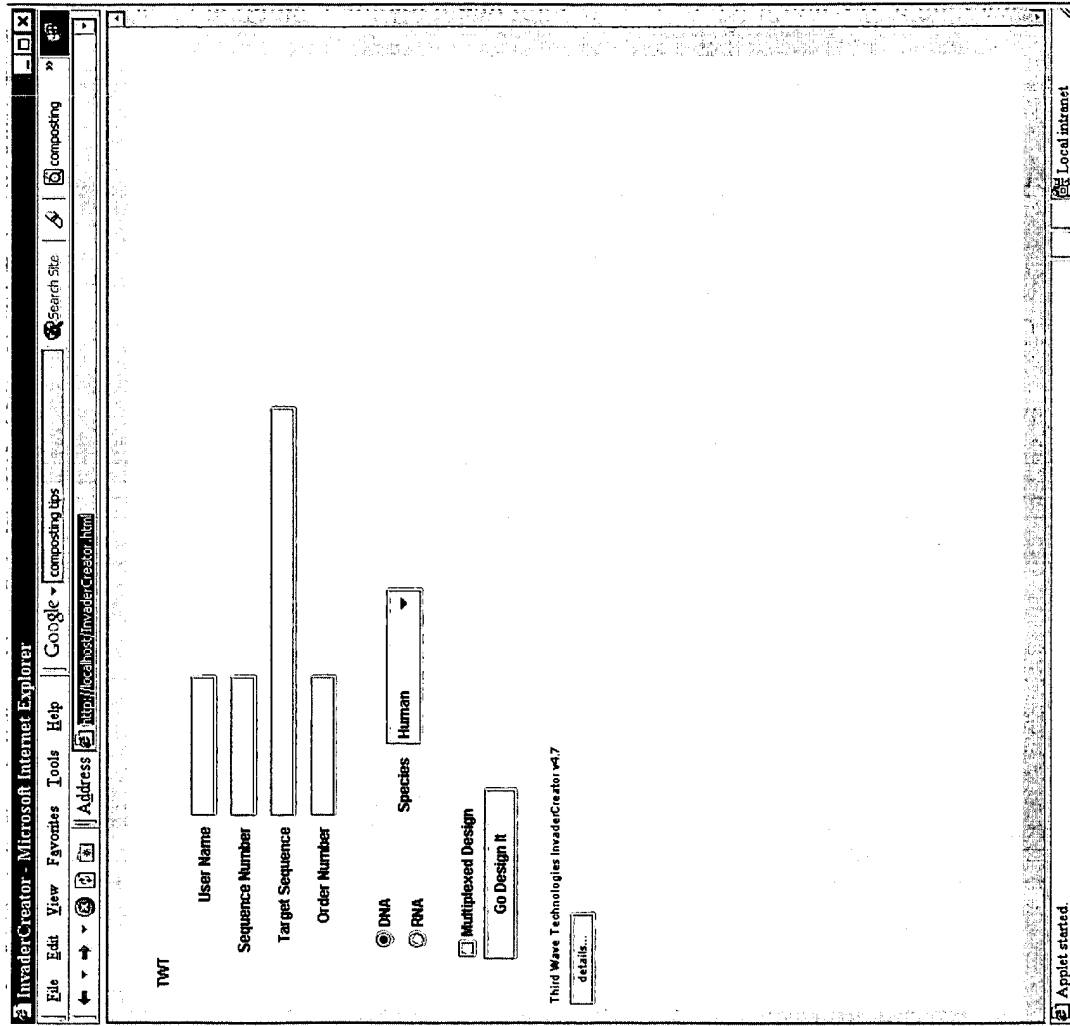


FIG. 47A-1

Oligo sequence descriptions: 5' to 3' direction, 2'-Ome nts are bolded and underlined, internal modifications defined in ()

Oligo Type	Oligo Sequence (5' to 3')	Modification	SEQ ID NO
hTNF- α			
probe	cgg ccg aga tca ctc tga ctg cct NH2	3' Amine	709
invader	tig tca ctc ggg gtt cga gaa gat gaa		710
stacker	<u>ggg cca gag ggc tga tta g</u>	<u>all 2'Ome bases</u>	711
stacker	<u>ggg cca gag ggc tga tta</u>	<u>all 2'Ome bases</u>	712
stacker	<u>ggg cca gag ggc tga at</u>	<u>all 2'Ome bases</u>	713
stacker	<u>ggg cca gag ggc t</u>	<u>all 2'Ome bases</u>	714
stacker	<u>ggg cca gag ggc</u>	<u>all 2'Ome bases</u>	715
arrestor	<u>agg cag tca gag tga tc</u>	<u>all 2'Ome bases</u>	716
arrestor	<u>agg cag tca gag tga tct c</u>	<u>all 2'Ome bases</u>	717
SRT	cgaagaagcagtggtgatctgcgcgNH2		718
FRET probe	Fcaac(Cy3)gcttctccg	3' Amine	719
probe	cgg tca cgc ctc tct gac tgc ct NH2	3' Amine	720
invader	tig tca ctc ggg gtt cga gaa gat gaa		721
stacker	<u>ggg cca gag ggc tga tta g</u>	<u>all 2'Ome bases</u>	722
arrestor	<u>agg cag tca gag agg cg</u>	<u>all 2'Ome bases</u>	723
SRT	cgaagaagcagtggtgatctgcgcgNH2	3'base <u>2'Ome</u> , 3'Amine	724
FRET probe	Fcaac(Cy3)gcttctccg		725
probe	cgg tca cgc ctc tct gac tgc ctg gNH2	3' Amine	726
invader	tig tca ctc ggg gtt cga gaa gat gaa		727
arrestor	<u>cca ggc agt cag aga ggc g</u>	<u>all 2'Ome bases</u>	728
SRT	cgaagaagcagtggtgatctgcgcgNH2	3'base <u>2'Ome</u> , 3'Amine	729
FRET probe	Fcaac(Cy3)gcttctccg		730
probe	cgg ccg aga tca ctc tga ctg cc NH2	3' Amine	731
invader	tig tca ctc ggg gtt cga gaa gat gaa		732
stacker	<u>tgg gcc aga ggg ctg att a</u>	<u>all 2'Ome bases</u>	733
arrestor	<u>agg cag tca gag tga tc</u>	<u>all 2'Ome bases</u>	734
SRT	cgaagaagcagtggtgatctgcgcgNH2	3' Amine	735
FRET probe	Fcaac(Cy3)gcttctccg		736

FIG. 47A-2

probe	ccg ccg aga tca ctg atc tga ctg NH2	3' Amine	737
invader	ctt gtc act cgg ggt tgc aga aga c		738
stacker	<u>cct ggg cca gag ggc tga tt</u>	all 2'Ome bases	739
arrestor	<u>cag tca gat cag tga tc</u>	all 2'Ome bases	740
SRT	cggaagaagcagttggtgatctcggggNH2	3' Amine	741
FRET probe	Fcaac(Cy3)gcttctccg		742
probe	ccg tca cgc ctc tct gac tgc ca NH2	3' Amine	743
probe	ccg tca cgc ctc tct gac tgc cg NH2	3' Amine	744
probe	ccg tca cgc ctc tct gac ggc ct NH2	3' Amine	745
probe	ccg tca cgc ctc tct gac agc ct NH2	3' Amine	746
invader	tgt tca ctc ggg gtt cga gaa gat gaa		747
stacker	<u>ggg cca gag gg</u>	all 2'Ome bases	748
arrestor	<u>agg cag tca gag agg cg</u>	all 2'Ome bases	749
arrestor	<u>agg ccg tca gag agg cg</u>	all 2'Ome bases	750
arrestor	<u>agg ctg tca gag agg cg</u>	all 2'Ome bases	751
SRT	ccaggaaagcagttggtgatctcggggNH2	3' 3bases 2'Ome	752
FRET probe	Fcaac(Z21)gcttcgtgg		753
probe	ccg ccg aga tca ctc tga tgc ctg gg NH2	3' Amine	754
invader	ctt gtc act cgg ggt tgc aga aga tga a		755
arrestor	<u>ccc agg cag tca gag tga tcNH2</u>	all 2'Ome bases, 3' Amine	756
SRT	cggaagaagcagttggtgatctcggggNH2	3' 2 last base 2' Ome, 3' Amine	757
FRET probe	Fcaac(Cy3)gcttctccg		758
hIL-1β			
probe	ccg tca cgc ctc cat ctg ttg agg g NH2	3' Amine	759
invader	cag gtc ctg gaa gga gca ctt a		760
stacker	<u>cca tca gct tct ttg ttc ttg tca tc</u>	all 2'Ome bases	761
arrestor	<u>gcc cta aac aga tgg agg cg</u>	all 2'Ome bases	762
SRT	cggaagaagcagttggtgatctcggtgacggtNH2	3' base 2'Ome, 3' Amine	763
FRET probe	Fcaac(Cy3)gcttctccg		764

FIG. 47A-3

probe	cgc tca cgc ctc cat ctg ttg agg gc NH2	3' Amine	765
invader	cag gtc ctg gaa gga gca ctt a	<u>all 2'Ome bases</u>	766
stacker	<u>cat cag ctt ctt tgt tct tgt cat cc</u>	<u>all 2'Ome bases</u>	767
arrestor	<u>gcc cta aac aga tgg agg cg</u>	3'base <u>2'Ome</u> , 3'Amine	768
SRT	cggaagaagcagttggaggcgtagcggttNH2		769
FRET probe	Fcaac(Cy3)gcttctccg		770
probe	cgc tca cgc ctc cat ctg ttg agg NH2	3' Amine	771
invader	cag gtc ctg gaa gga gca ctt a	<u>all 2'Ome bases</u>	772
stacker	<u>gcc atc agc ttc ttt gtt ctt gtc atc</u>	3'base <u>2'Ome</u> , 3'Amine	773
SRT	cggaagaagcagttggaggcgtagcggttNH2		774
FRET probe	Fcaac(Cy3)gcttctccg		775
probe	cgc tca cgc ctc cca tca gct tcNH2	3' Amine	776
invader	gag cac ttc atc tgt tta ggg a	<u>all 2'Ome bases</u>	777
stacker	<u>ttt gtt ctt gtc atc ctc att gcc ac</u>	<u>all 2'Ome bases</u>	778
arrestor	<u>gaa gct gat ggg agg cg</u>	3'base <u>2'Ome</u> , 3'Amine	779
SRT	cggaagaagcagttggaggcgtagcggttNH2		780
FRET probe	Fcaac(Cy3)gcttctccg		781
probe	cgcccgagatcactcatctgttttagggccNH2	3' Amine	782
probe	cgcccgagatcactcatctgttttagggcNH2	3' Amine	783
invader	caggtcttggaggagcacia		784
arrestor	<u>ggccctaacaagatgagtgatcNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	785
SRT	cggaagaagcagttggtagctcggcgNH2	3' 2 last base <u>2'Ome</u> , 3' Amine	786
FRET probe	Fcaac(Cy3)gcttctccg		787
hcFOS			
probe	cgc tca cgc ctc cag gtt ggc NH2	3' Amine	788
invader	gct tga ccc agg gag gg	<u>all 2'Ome bases</u>	789
arrestor	<u>gcc aag gta cta gag gca</u>	3'base <u>2'Ome</u> , 3'Amine	790
SRT	cggaagaagcagttggaggcgtagcggttNH2		791
FRET probe	Fcaac(Cy3)gcttctccg		792

FIG. 47A-4

probe	cgc tca cgc ctc cag gtt gg NH2	3' Amine	793
invader	gct tga ccc agg gag gg		794
stacker	<u>caa tct cgg tct gca aag cag ac</u>	<u>all 2'Ome bases</u>	795
arrestor	<u>gcc aag gtg ctg gag gcg</u>	<u>all 2'Ome bases</u>	796
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base <u>2'Ome</u> , 3'Amine	797
FRET probe	Fcaac(Cy3)gcttctccg		798
probe	cgc tca cgc ctc tca gca ggt tgg NH2	3' Amine	799
invader	act cta gtt tt cct tct cct a		800
stacker	<u>caa tct cgg tct gca aag cag ac</u>	<u>all 2'Ome bases</u>	801
arrestor	<u>cca acc tgc tga gag gcg</u>	<u>all 2'Ome bases</u>	802
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base <u>2'Ome</u> , 3'Amine	803
FRET probe	Fcaac(Cy3)gcttctccg		804
hIL-6			
probe	cgc ccg aga tca ctc tcc tca ttg aat cct NH2	3' Amine	805
probe	cgc ccg aga tca ctc tcc tca ttg aat ccNH2	3' Amine	806
invader	cca aaa gtc cag tga tga ttt tca cca ggc aag a		807
arrestor	<u>agg att caa tga gga aga gtg atc tNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	808
SRT	cggaagaagcagttggatctcggcgNH2	3' 2 last base <u>2'Ome</u> , 3' Amine	809
FRET probe	Fcaac(Cy3)gcttctccg		810
probe	cgc tca cgc ctc ctc ctc att gaaNH2	3' Amine	811
invader	cca gtg atg att ttc acc agg caa gla		812
stacker	<u>tcc aga ttg gaa gca tcc atc t</u>	<u>all 2'Ome bases</u>	813
arrestor	<u>ttc aat gag gag gag gc</u>	<u>all 2'Ome bases</u>	814
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base <u>2'Ome</u> , 3'Amine	815
FRET probe	Fcaac(Cy3)gcttctccg		816
probe	cgc tca cgc ctc ctc ctc att gaNH2	3' Amine	817
invader	cca gtg atg att ttc acc agg caa gla		818
stacker	<u>atc cag att gga agc atc cat ct</u>	<u>all 2'Ome bases</u>	819
arrestor	<u>ttc aat gag gag gag gc</u>	<u>all 2'Ome bases</u>	820
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base <u>2'Ome</u> , 3'Amine	821
FRET probe	Fcaac(Cy3)gcttctccg		822

FIG. 47A-5

probe	cog tca cgc ctc ctc att gaa tgNH2	3' Amine	823
probe	cog tca cgc ctc ctc att gaa taNH2	3' Amine	824
probe	cog tca cgc ctc ctc att gaa tNH2	3' Amine	825
invader	cca aaa gtc cag tga ttt tca cca ggc aag ta		826
stacker	<u>cagattggaagcatcatct</u>	<u>all 2'Ome bases</u>	827
arrestor	<u>gattcaatgaggagggc</u>	<u>all 2'Ome bases</u>	828
SRT	ccaggaagcaagtggaggcgtgacggu	<u>3' 3bases 2'Ome</u>	829
FRET probe	Fcac(Z21)gtctctgtg		830
hMCP-1			
probe	cog tca cgc ctc ctt cgg agt ttg gtNH2	3' Amine	831
probe	cog tca cgc ctc ctt cgg agt ttg gtt NH2	3' Amine	832
invader	ggg ttg tgg agt gag tgt tca agt a		833
arrestor	<u>aac cca aac tcc gaa ggc ggc gtc NH2</u>	<u>all 2'Ome bases</u>	834
SRT	cggaagcagcagttggaggcgtgacggtNH2	<u>3'base 2'Ome, 3'Amine</u>	835
FRET probe	Fcaac(Cy3)gcttctctcg		836
probe	gcc gtc acg cct ctt tgg gtt tgc ttg tc NH2	3' Amine	837
probe	gcc gtc acg cct ctt tgg gtt tgc ttg tNH2	3' Amine	838
Invader	tggagtgagtgttcaagttctggaga		839
arrestor	<u>gacaagcaaacccaaagaggcg</u>	<u>all 2'Ome bases</u>	840
SRT	cggaagaagcagttggaggcgtgacggtcNH2	<u>3'2 bases 2'Ome, 3'Amine</u>	841
FRET probe	Fcaac(Cy3)gcttctctcg		842
probe	cct gtc tgc ctg cct tgc gag ttt ggg		843
probe	cct gtc tgc ctg cct tgc gag ttt gg		844
invader	ggg ttg tgg agt gag tgt tca agt a		845
arrestor	<u>ccc aaa ctc cga agg cag cg</u>	<u>all 2'Ome bases</u>	846
SRT	cggaagaagcagttggcagcgagacgNH2	<u>3' last base 2'Ome, 3' Amine</u>	847
SRT	cggaagaagcagttggcagcgagac(Amino dA)ggNH2	Amino dA modification	848
SRT	cggaagaagcagttggcagcg(Amino dA)gacagNH2	Amino dA modification	849
SRT	cggaagaagcagttggc(Amono dA)gcgagacagNH2	Amino dA modification	850
SRT	cggaagaagcagttggcagcg(Amino dA)gac(Amino dA)ggNH2	Amino dA modification	851
SRT	cggaagaagcagttggc(Amino dA)gcgagac(Amino dA)ggNH2	Amino dA modification	852
SRT	cggaagaagcagttggc(Amino dA)gcg(Amino dA)gacagNH2	Amino dA modification	853
FRET probe	Fcaac(Cy3)gcttctctcg		854

FIG. 47A-6

probe	goc gtc acg cct ctg gga cac ttg ctg cNH2	3' Amine	855
invader	goc aca atg gtc ttg aag atc aca gct tct ta		856
arrestor	<u>gca gca agt gtc cca gag ggc NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	857
SRT	cggaagaagcagttggaggcgtagcggtNH2	3'2 bases <u>2'Ome</u> , 3' Amine	858
FRET probe	Fcaac(Cy3)gcttctccg		859
probe	ccg tca cgc ctc ctt cgg agt ttg gg NH2	3' Amine	860
invader	ggg ttg tgg agt gag tgt tca agt a		861
arrestor	<u>5'-ggg-aaa-ctc-cga-agg-agg-cg-3'</u>	<u>all 2'Ome bases</u>	862
SRT	ccggaagcaagtgaggcgtagcggt	<u>3' 3bases 2'Ome</u>	863
FRET probe	Fcaac(Z21)gcttcgtgg		864
probe	cgc cga gat cac ctt cgg agt ttg ggNH2	3' Amine	865
invader	ggg ttg tgg agt gag tgt tca agt a		866
arrestor	<u>ccc aaa ctc cga agg tga tc</u>	<u>all 2'Ome bases</u>	867
SRT	cggaagaagcagttggtagctcgcggtNH2	3' Amine	868
FRET probe	Fcaac(Cy3)gcttctccg		869
probe	aac gag gcg cac ctt cgg agt ttg gg NH2	3' Amine	870
invader	ggg ttg tgg agt gag tgt tca agt a		871
arrestor	<u>ccc aaa ctc cga agg tgc g</u>	<u>all 2'Ome bases</u>	872
SRT	cggaagaagcagttggtagcctcgttaaNH2	3' last 5 bases <u>2'Ome</u> , 3' Amine	873
FRET probe	Fcaac(Cy3)gcttctccg		874
probe	ccg tca cgc ctc ctt cgg agt ttg g NH2	3' Amine	875
invader	ggg ttg tgg agt gag tgt tca agt a		876
stacker	<u>gtt tgc ttg tcc agg tgg</u>	<u>all 2'Ome bases</u>	877
arrestor	<u>cca aac tcc gaa gga ggc g</u>	<u>all 2'Ome bases</u>	878
SRT	cggaagaagcagttggaggcgtagcggtNH2	3'base <u>2'Ome</u> , 3' Amine	879
FRET probe	Fcaac(Cy3)gcttctccg		880
probe	ccg tca cgc ctc ctt cgg agt ttg NH2	3' Amine	881
invader	ggg ttg tgg agt gag tgt tca agt a		882
stacker	<u>gtt ttg ctt gtc cag gtc g</u>	<u>all 2'Ome bases</u>	883
arrestor	<u>cca aac tcc gaa gga ggc g</u>	<u>all 2'Ome bases</u>	884
SRT	cggaagaagcagttggaggcgtagcggtNH2	3'base <u>2'Ome</u> , 3' Amine	885

FIG. 47A-7

FRET probe	Fcaac(Cy3)gcttctccg				886
probe	ccg tca cgc ctc ctt cgg agt ttNH2				
invader	ggg tgg agt gag tgt tca agt a			3' Amine	887
stacker	<u>ggg ttt gct tat cca ggt g</u>			<u>all 2'Ome bases</u>	888
arrestor	<u>cca aac tcc gaa ggc g</u>			<u>all 2'Ome bases</u>	889
SRT	cggaaagaagcagttggaggcgtgacggtNH2			3'base <u>2'Ome</u> , 3'Amine	890
FRET probe	Fcaac(Cy3)gcttctccg				891
					892
probe	ccgtcacgcctccggagttgggNH2				893
invader	gtt gtg gag tga gtg ttc aag tat ta			3' Amine	894
stacker	<u>ttt gct tat cca ggt ggt cca g</u>			<u>all 2'Ome bases</u>	895
arrestor	<u>ccc aaa ctc cgg agg cg</u>			<u>all 2'Ome bases</u>	896
SRT	cggaaagaagcagttggaggcgtgacggtNH2			3'base <u>2'Ome</u> , 3'Amine	897
FRET probe	Fcaac(Cy3)gcttctccg				898
probe	cgc cga gat cac cgg agt ttg ggNH2				899
invader	gtt gtg gag tga gtg ttc aag tat ta			3' Amine	900
stacker	<u>ttt gct tat cca ggt ggt cca g</u>			<u>all 2'Ome bases</u>	901
arrestor	<u>cta gtg gcc tca aac cc</u>			<u>all 2'Ome bases</u>	902
SRT	cggaaagaagcagttggtgatctcggcggNH2			3' Amine	903
FRET probe	Fcaac(Cy3)gcttctccg				904
hUbiquitin					
probe	cgc cga gat cac att ttc tat cgt				905
probe	cgc cga gat cac att ttc tat cgt NH2			3' Amine	906
invader	5' -cct tcc tta tcc tgg atc ttg gca -3'				907
arrestor	<u>acg ata gaa aat gta aag gtg atc</u>			<u>all 2'Ome bases</u>	908
SRT	5'-cgc agt gag aat gag gtg atc tcg gcggt-3'			<u>3' last 3 bases 2'Ome</u>	909
FRET probe	5'-Red-ctc-Z21-ttc tca gtg cg-3'				910

FIG. 47A-8

hIL-2	gtttcttttgctcgcacatgccNH2	3' Amine	911
probe	cca gca gta aat gct cca gtt gta ga	<u>all 2'Ome bases</u>	912
invader	<u>tag aac ttg aag tag gtg c</u>	<u>all 2'Ome bases</u>	913
stacker	<u>caa aga aaa cac agg agg c</u>	<u>3' 3bases 2'Ome</u>	914
arrestor	ccaggaaagcaagtggagggtgac <u>ggu</u>		915
SRT	Fcac(Z21)tgcttcgtgg		916
FRET probe			
probe	aac gag gcg cac ctg tgt ttt ctt tg NH2	3' Amine	917
invader	cca gca gta aat gct cca gtt gta ga	<u>all 2'Ome bases</u>	918
stacker	<u>tag aac ttg aag tag gtg c</u>	<u>all 2'Ome bases</u>	919
arrestor	<u>caa aga aaa cac agg tgc g</u>	<u>3' last 3 bases 2'Ome</u>	920
SRT	ccaggaaagcaagtgggtgcgcctcgttt		921
FRET probe	Fcac(Z21)tgcttcgtgg		922
probe	ccg tca cgc ctc cag ttg tag NH2	3' Amine	923
invader	<u>aaa atc atc tgt aaa tcc agc agt aaa tga</u>	<u>5' 6 bases 2'Ome</u>	924
stacker	<u>ctg tgt ttt ctt tgt aga ac</u>	<u>all 2'Ome bases</u>	925
arrestor	<u>cta caa ctg gag gag gc</u>	<u>all 2'Ome bases</u>	926
SRT	ccaggaaagcaagtggagggtgac <u>ggu</u>	<u>3' 3bases 2'Ome</u>	927
FRET probe	Fcac(Z21)tgcttcgtgg		928
probe	aac gag gcg cac ctc cag ttg tag NH2	3' Amine	929
invader	<u>aaa atc atc tgt aaa tcc agc agt aaa tga</u>	<u>5' 6 bases 2'Ome</u>	930
stacker	<u>ctg tgt ttt ctt tgt aga ac</u>	<u>all 2'Ome bases</u>	931
arrestor	<u>cta caa ctg gag gtg cg</u>	<u>all 2'Ome bases</u>	932
SRT	ccaggaaagcaagtgggtgcgcctcgttt	<u>3' last 3 bases 2'Ome</u>	933
FRET probe	Fcac(Z21)tgcttcgtgg		934
probe	ccg tca cgc ctc ctg tgt ttt ctt tgt aNH2	3' Amine	935
invader	gta aat cca gca gta aat gct cca gtt gta ga	<u>all 2'Ome bases</u>	936
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>all 2'Ome bases, 3' amine</u>	937
arrestor	<u>tacaaagaaaacacagagggtgcgNH2</u>	<u>3' 3bases 2'Ome</u>	938
SRT	ccaggaaagcaagtggagggtgac <u>ggu</u>		939
FRET probe	Fcac(Z21)tgcttcgtgg		940
probe	aac gag gcg cac ctg tgt ttt ctt tgt aNH2	3' Amine	941

FIG. 47A-9

invader	gta aat cca gca gta aat gct cca gtt gta ga				
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>all 2'Ome bases</u>			942
arrestor	<u>tac aaa gaa aac aca ggt gcg</u>	<u>all 2'Ome bases</u>			943
SRT	ccaggaagcaagtggcgccctcgttt	3' last 3 bases <u>2'Ome</u>			944
FRET probe	Fcac(Z21)tgcttcgtgg				945
					946
probe	cgg tca cgc ctc ctc cag ttg taa NH2	3' Amine			947
probe	cgg tca cgc ctc ctc cag ttg tat NH2	3' Amine			948
probe	cgg tca cgc ctc ctc cag ttg tac NH2	3' Amine			949
invader	<u>aaa atc atc tgt aaa tcc agc agt aaa tga</u>	5' 6 bases <u>2'Ome</u>			950
stacker	<u>ctg tgt tt ctt tgt aga ac</u>	<u>all 2'Ome bases</u>			951
arrestor	<u>cta caa ctg gag gag gc</u>	<u>all 2'Ome bases</u>			952
SRT	ccaggaagcaagtggagcgtagcggg	3' 3bases <u>2'Ome</u>			953
FRET probe	Fcac(Z21)gcttcgtgg				954
probe	gcc gtc acg cct ccc ttc ttg atg NH2	3' Amine			955
invader	ttc tag aca ctg aag atg ttt cag ttc tgt gga				956
arrestor	<u>cat gcc caa gaa ggg agg cg NH2</u>	<u>all 2'Ome bases,3' Amine</u>			957
SRT	cggaaagacagctggagcgtagcgcNH2	3'2 bases <u>2'Ome</u> , 3'Amine			958
FRET probe	Fcaac(Cy3)gcttcctcgg				959
probe	cgg tca cgc ctc taa ttc cat tca aaa tca tct NH2	3' Amine			960
invader	cat cct ggt gag ttt ggg att ctt gta att tat a				961
stacker	<u>gta aat cca gca gta aat gct cca gNH2</u>	<u>all 2'Ome bases,3' Amine</u>			962
arrestor	<u>aga tga ttt tga atg gaa tta gag gcg NH2</u>	<u>all 2'Ome bases,3' Amine</u>			963
SRT	cggaaagacagctggagcgtagcgcNH2	3'2 bases <u>2'Ome</u> , 3'Amine			964
FRET probe	Fcaac(Cy3)gcttcctcgg				965
probe	cgg ccg aga tca cct gtg ttt tct ttg ta				966
invader	gta aat cca gca gta aat gct cca gtt gta ga				967
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>All 2' Ome</u>			968
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	5' 3bases <u>2'Ome</u>			969
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	5' 6bases <u>2'Ome</u>			970
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>All 2' Ome</u>			971
arrestor	<u>tac aaa gaa aac aca ggt gat ct</u>	3' 2 last base <u>2' Ome</u> , 3' Amine			972
SRT	cggaggaagcagctggtagctcggcggcNH2				973
FRET probe	Fcaac(Cy3)gcttcctcgg				974

FIG. 47A-10

probe	aac gag gcg cac cct tct tgg gca tgnh2	3' Amine	975
invader	ttc tag aca ctg aag atg ttt cag ttc tgt gga		976
arrestor	<u>cat gcc caa gaa ggg tgc qNH2</u>	<u>all 2'Ome bases</u>	977
SRT	cggaagaagcagtggtgcgcctcgtttaaNH2	3' last 5 bases <u>2'Ome</u> , 3' Amine	978
FRET probe	Fcaac(Cy3)gcttctccg		979
probe	aac gag gcg cac taa ttc cat tca aaa tca tct		980
invader	cat cct ggt gag tt ggg att ctt gla att tat a		981
stacker	<u>gta aat cca gca gta aat gct cca qNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	982
arrestor	<u>aga tga ttt tga atg gaa tta gtg gt NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	983
SRT	cggaagaagcagtggtgcgcctcgtttaaNH2	3' last 5 bases <u>2'Ome</u> , 3' Amine	984
FRET probe	Fcaac(Cy3)gcttctccg		985
hIL-4			
probe	cct gtc tgc ctg cca gtt gtg ttc ttg gag NH2	3' Amine	986
invader	ccc tgc aga agg ttt cct tct a		987
invader	ccc tgc aga tgg ttt cct tct a		988
arrestor	<u>ctc caa gaa cac aac tgg cag cNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	989
arrestor	<u>ctc caa gaa cac aac tgg cag cga NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	990
arrestor	<u>ctc caa gaa cac aac tgg cag cga qnNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	991
SRT	cggaagaagcagtggtgcgcctcgtttaaNH2	3' last base <u>2'Ome</u> , 3' Amine	992
FRET probe	Fcaac(Cy3)gcttctccg		993
probe	aac gag gcg cac ctt gga ggc agc aaa NH2	3' Amine	994
probe	aac gag gcg cac ctt gga ggc agc aaNH2	3' Amine	995
invader	aag gtt tcc ttc tca gtt gtg tta		996
arrestor	<u>ctt tgc tgc ctc caa ggt gcg NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	997
SRT	cggaagaagcagtggtgcgcctcgtttaa NH2	3' last 5 bases 2'Ome, 3' Amine	998
FRET probe	Fcaac(Cy3)gcttctccg		999
probe	cag tca cgt ctc tgg agg cag caa aga tg NH2	3' Amine	1000
invader	aag gtt tcc ttc tca gtt gtg ttc ta		1001
arrestor	<u>cat ctt tgc tgc ctc cag aga cg NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	1002
SRT	gctactgagatgaaggagcgtgactgtaNH2	3' Amine	1003
FRET probe	Fcttc(Cy3)ttcagtagc		1004

FIG. 47A-11

probe	aac gag gcg cac ctt gga ggc agc aaa g NH2	3' Amine	1005
invader	aag gtt tcc ttc tca gtt gtg tta		1006
arrestor	<u>ctt tgc tgc ctc caa ggt ggc NH2</u>	<u>all 2'Ome bases,3' Amine</u>	1007
SRT	cggaggaagcagttggtgcgcctcgttaa	3' last 5 bases 2'Ome	1008
FRET probe	Fcaac(Cy3)gcttctccg		1009

mIL-2			
probe	cgc cga gat cac ccc ttt agt ttt aca aca gtnNH2	3' Amine	1010
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1011
arrestor	<u>act gtt gta aaa cta aag ggg gtg atc t NH2</u>	<u>all 2'Ome bases,3' Amine</u>	1012
SRT	cggaggaagcagttggtgctcgcgcgNH2	3' last two bases are 2' Ome , 3' Amine	1013
FRET probe	Fcaac(Cy3)gcttctccg		1014

probe	tgc cgc cga gat cac ccc ttt agt ttt aca aca gtnNH2	3' Amine	1015
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1016
arrestor	<u>act gtt gta aaa cta aag ggg gtg NH2</u>	<u>all 2'Ome bases,3' Amine</u>	1017
arrestor	<u>act gtt gta aaa cta aag ggg gtg at NH2</u>	<u>all 2'Ome bases,3' Amine</u>	1018
arrestor	<u>act gtt gta aaa cta aag ggg gtg at ctnNH2</u>	<u>all 2'Ome bases,3' Amine</u>	1019
arrestor	<u>act gtt gta aaa cta aag ggg gtg at ctcgNH2</u>	<u>all 2'Ome bases,3' Amine</u>	1020
SRT	cggaggaagcagttggtgctcgcgcgcaNH2	3' Last 2bases 2'Ome, 3' Amine	1021
FRET probe	Fcaac(Cy3)gcttctccg		1022

probe	gc cgc cga gat cac ccc ttt agt ttt aca aca gtnNH2	3' Amine	1023
probe	c cgc cga gat cac ccc ttt agt ttt aca aca gtnNH2	3' Amine	1024
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1025
arrestor	<u>act gtt gta aaa cta aag ggg gtg at NH2</u>	<u>all 2'Ome bases,3' Amine</u>	1026
SRT	cggaggaagcagttggtgctcgcgcgcgcaNH2	3' Last 2bases 2'Ome, 3' Amine	1027
FRET probe	Fcaac(Cy3)gcttctccg		1028

probe	aac gag gcg cac ccc ttt agt ttt aca aca gt NH2	3' Amine	1029
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1030
arrestor	<u>agtaactgtgtataaaactaaaggggtgcg</u>	<u>all 2'Ome bases,3' Amine</u>	1031
SRT	cggaggaagcagttggtgcgcctcgttaa	3' last 5 bases 2'Ome	1032
FRET probe	Fcaac(Cy3)gcttctccg		1033

FIG. 47A-12

probe	aac gag gcg cac ccc ttt agt ttt aca aca gt NH2	3' Amine	1034
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1035
arrestor	<u>agt aac tgt tgt aaa act aaa ggg gtg cg NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	1036
SRT	cgaggagcagtggtgcgcctcgttaa	3' last 5 bases 2'Ome	1037
FRET probe	Fcaac(Cy3)gcttctccg		1038
probe	ccgtcacgcctcccttagttttacaacNH2	3' Amine	1039
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1040
stacker	<u>agt tac tct gat att gct gat gaa att ctc ag</u>	<u>all 2'Ome bases,</u>	1041
arrestor	<u>gtgtataaactaaaggaggcg</u>	<u>all 2'Ome bases,</u>	1042
SRT	cggaagaagcagttggaggcgtagcggNH2	3'base 2'Ome, 3'Amine	1043
FRET probe	Fcaac(Cy3)gcttctccg		1044
probe	cgcgagatcaccccttagttttacaacNH2	3' Amine	1045
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1046
stacker	<u>agt tac tct gat att gct gat gaa att ctc ag</u>	All 2'Ome	1047
arrestor	<u>gtgtataaactaaagggtgac</u>	All 2'Ome	1048
SRT	cggaagaagcagttggtgacgcggcgNH2	3' Amine	1049
FRET probe	Fcaac(Cy3)gcttctccg		1050
probe	ccgtcacgcctcccttagttttacaacNH2	3' Amine	1051
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1052
stacker	<u>cagttactctgatattgctgatgaaattctca</u>	All 2'Ome	1053
arrestor	<u>gtgtataaactaaaggaggcg</u>	All 2'Ome	1054
SRT	cggaagaagcagttggaggcgtagcggNH2	3'base 2'Ome, 3'Amine	1055
FRET probe	Fcaac(Cy3)gcttctccg		1056
probe	ccgtcacgcctcccttagttttacaacNH2	3' Amine	1057
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1058
stacker	<u>cagttactctgatattgctgatgaaattctca</u>	All 2'Ome	1059
arrestor	<u>gtgtataaactaaaggaggcg</u>	All 2'Ome	1060
SRT	ccgaagaagcagttggaggcgtagcggNH2	3' 2 bases 2'Ome, 3'Amine	1061
FRET probe	Fcaac(Cy3)gcttctggtg		1062

FIG. 47A-14

probe	cag tca cgt ctc tct tca aaa tgc cta aga aaa gag tNH2	3' Amine	1092
invader	tct gca tta ttt ttc tgt cac tct cct ctt tcc aat a		1093
arrestor	<u>act ctt ttc tta ggc att ttg aag aga gac gNH2</u>	<u>all 2'Ome bases,3' Amine</u>	1094
SRT	<u>gctactgagatgaaggagacgtgactgttaNH2</u>	<u>all 2'Ome bases,3' Amine</u>	1095
FRET probe	Fcttc(Cy3)tctcagtagc		1096
<hr/>			
mIFN-γ			
probe	aac gag gcg cac cct ttt gcc agt tcc NH2	3' Amine	1097
invader	gct ctg cag gat ttt cat gtc acc ata		1098
arrestor	<u>gag gaa ctg qca aaa ggg tgc gNH2</u>	<u>all 2'Ome bases,3' Amine</u>	1099
SRT	<u>gctactgagatgaaggagacgtgactgttaNH2</u>	<u>all 2'Ome bases,3' Amine</u>	1100
FRET probe	Fcttc(Cy3)tctcagtagc		1101
<hr/>			
probe	aac gag gcg cac cct ttt gcc agt NH2	3' Amine	1102
invader	gct ctg cag gat ttt cat gtc acc ata		1103
stacker	<u>tcc tcc aga tat cca aga aga gac tc</u>	<u>all 2'Ome bases</u>	1104
arrestor	<u>act ggc aaa agg cgg gc</u>	<u>all 2'Ome bases</u>	1105
SRT	cgg agg aaag cag ttg gtg cgc ctc <u>guu aa NH2</u>	3' last 5 bases <u>2'Ome</u>	1106
SRT	cgg aag aaag cag ttg gtg cgc ctc <u>guu aa NH2</u>	3' last 5 bases <u>2'Ome</u>	1107
FRET probe	Fcaac(Cy3)gcttcctcog		1108
<hr/>			
probe	gcc gca cgc cgt ttg cca gt NH2	3' Amine	1109
invader	gct ctg cag gat ttt cat gtc acc ata		1110
stacker	<u>tcc tcc aga tat cca aga aga gac tc</u>	<u>all 2'Ome bases</u>	1111
arrestor	<u>act ggc aaa agg cgg gc</u>	<u>all 2'Ome bases</u>	1112
SRT	cgg agg aag cag ttg cgg cgt gcg gca NH2		1113
FRET probe	Fcaac(Cy3)gcttcctcog		1114
<hr/>			
probe	aac gag gcg cac cct ttt gcc agt tc NH2	3' Amine	1115
invader	gct ctg cag gat ttt cat gtc acc ata		1116
stacker	<u>ctc cag ata tcc aag aag aga ctc</u>	<u>all 2'Ome bases</u>	1117
arrestor	<u>gaa ctg gca aaa ggg tgc g</u>	<u>all 2'Ome bases</u>	1118
SRT	cggaggagcagtggtgcgcctcgttaaNH2	3' last5 bases <u>2'Ome</u>	1119
FRET probe	Fcaac(Cy3)gcttcctcog		1120

FIG. 47A-15

hIL-8	3' Amine	1121
probe	3' Amine	1121
probe	3' Amine	1122
invader		1123
arrestor		1124
arrestor		1125
SRT		1126
FRET probe		1127
probe		1128
probe		1129
invader		1130
stacker		1131
arrestor		1132
arrestor		1133
arrestor		1134
SRT		1135
FRET probe		1136
probe		1137
invader		1138
invader		1139
invader		1140
arrestor		1141
arrestor		1142
SRT		1143
FRET probe		1144
probe		1145
invader		1146
invader		1147
invader		1148
arrestor		1149
SRT		1150
FRET probe		1151

FIG. 47A-16

probe	cgc tca cgc ctc cat ctt cac tga ttc tgc NH2	3' Amine	1152
invader	agt gtt gaa gla gat ttg ctt gaa gtt tca ctg ga		1153
stacker	<u>ttg gat acc aca gag aat gaa tt</u>	<u>all 2'Ome bases</u>	1154
SRT	cggagaagcagcttgaggcggtgacggfNH2	3'base <u>2'Ome</u> , 3'Amine	1155
FRET probe	Fcaac(Cy3)gcttcctcgcg		1156
probe	cgc tca cgc ctc cat ctt cac tga tt NH2	3' Amine	1157
invader	agt gtt gaa gla gat ttg ctt gaa gtt tca ctg ga		1158
stacker	<u>ctt gga tac cac aga gaa tga att</u>		1159
SRT	cggagaagcagcttgaggcggtgacggfNH2	3'base <u>2'Ome</u> , 3'Amine	1160
FRET probe	Fcaac(Cy3)gcttcctcgcg		1161
probe	cgc tca cgc ctc cat ctt cac tga ttc tgc NH2	3' Amine	1162
invader	agt gtt gaa gla gat ttg ctt gaa gtt tca ctg ga		1163
helper	<u>ata-cca-cag-aga-atg-aat-ttt-ttt-atg</u>	<u>all 2'Ome bases</u>	1164
arrestor	<u>tcc aag aat cag tga aga tgg agg cgt gNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	1165
SRT	cggagaagcagcttgaggcggtgacggfNH2	3'base <u>2'Ome</u> , 3'Amine	1166
FRET probe	Fcaac(Cy3)gcttcctcgcg		1167
SRT	cggagaagcagcttggtgatctcggcggtNH2	3' Amine	1168
FRET probe	Fcaac(Cy3)gcttcctcgcg		1169
SRT	cggagaagcagcttgaggcggtgacggfNH2	3'base <u>2'Ome</u> , 3'Amine	1170
FRET probe	Fcaac(Cy3)gcttcctcgcg		1171
SRT	ccaggaagcaagtgaggcggtgacggg	3' 3bases <u>2'Ome</u>	1172
FRET probe	Fcaac(Z21)gcttcgtgg		1173
SRT	cggagggaagcagcttggtgatctcggcggtNH2	3' 2 last base <u>2'Ome</u> , 3' Amine	1174
FRET probe	Fcaac(Cy3)gcttcctcgcg		1175
SRT	cggagaagcagcttgaggcggtgacggcNH2	3'2 bases <u>2'Ome</u> , 3'Amine	1176
FRET probe	Fcaac(Cy3)gcttcctcgcg		1177
SRT	ccaggaagcaagtggtgacccctcgttt	3' last 3 bases <u>2'Ome</u>	1178
FRET probe	Fcaac(Z21)gcttcgtgg		1179

FIG. 47A-17

SRT FRET probe	cgagggaagcagttggtgcgcctcgttaa <u>NH2</u> Fcaac(Cy3)gcttcctcgcg	3' last5 bases 2'Ome	1180 1181
SRT FRET probe	cggaggaaagcgggtggtgatctcgcggcga <u>NH2</u> Fcaac(Cy3)gcttcctcgcg	3' Last 2bases 2'Ome, 3' Amine	1182 1183
SRT FRET probe	gctactgagatgaaggagagcgtgactgtan <u>H2</u> Fcttc(Cy3)tctcagtagc	3' Amine	1184 1185
SRT FRET probe	ccaggaaagcagttgagggcgtgacggg <u>NH2</u> Fcaac(Cy3)gcttcgtgg	3' 2 bases 2'Ome, 3'Amine	1186 1187
h3A4 probe h3A4 invader Capture Sequence	agg agc cac tcc att gga tga agc atg tac aga atc ccc ggt tat tta tgc aga		1188 1189
Set 1 h3A4 probe h3A4 invader Capture Sequence	gtg gcg tat cac aga caa tga gag cct cct tta tat tcc caa gla taa cac tct aa		1190 1191
Set 2/Set 3 h3A4 probe h3A4 arrestor h3A4 invader h3A4 stacking oligo h3A4 stacking oligo SRT FRET Oligo	AAC GAG GCG CAC CAC AGA CAA TGA GAG <u>CICICATTGICIGIGGICCG-NH2</u> cct cct tta tat tcc caa gla taa cac tct aa agctcaatgcatgtacagaatccccgg <u>agctcaatgcatgtacagaatccccgg</u>		1192 1193 1194 1195 1196
Set 4 h3A4 probe h3A4 arrestor h3A4 invader h3A4 stacking oligo	aac gag gcg cac cac aga caa tga gag ag-NH2 <u>ctc tct cat tgt ctg tgg tgc g-NH2</u> cct cct tta tat tcc caa gla taa cac tct aa <u>ctc aat gca tgt aca gaa tcc ccc gtt</u>		1197 1198 1199 1200

FIG. 47A-18

[illegible]

FIG. 47A-19

Set 1/Set 2	AACGAGGGCGCACCTCTTATCAGAGCTC	1218
h3A4 probe	AACGAGGGCGCACCTCTTATCAGAGCTC-NH2	1219
h3A4 probe	tig tgg agg aaa tia tfg aga aat gtt gat ta	1220
h3A4 invader	<u>GAGCTCTGATAAGAGGTCG-NH2</u>	1221
h3A4 arrestor		
SRT		
Set 1/Set 2/ Set 3		
h3A4 probe	cgg tca cgc ctc gcc cca ca - NH2	1222
h3A4 arrestor	<u>tgt ggg gcg agg cg</u>	1223
h3A4 invader	cag cac agg ctg tfg acc atc ata aaa c	1224
h3A4 stacking oligo	<u>cuu-uuc-cau-acu-uuu-uau-gac-auu-c</u>	1225
h3A4 stacking oligo	ctt ttc cag act ttt tat gac att c	1226
h3A4 stacking oligo	<u>ctt ttc cag act ttt tat gac</u>	1227
SRT		
FRET		
Set 4/Set 5		
h3A4 probe	cgg tca cgc ctc gcc cca ca	1228
h3A4 probe	cgg tca cgc ctc gcc cca ca - HEX	1229
h3A4 invader	cag cac agg ctg tfg acc atc ata aaa c	1230
h3A4 stacking oligo	<u>cuu-uuc-cau-acu-uuu-uau-gac-auu-c</u>	1231
SRT		
FRET		
Set 6/ Set 7/ Set 8		
h3A4 probe	cgg tca cgc ctc gcc cca cc - NH2	1232
h3A4 probe	cgg tca cgc ctc gcc cca cg - NH2	1233
h3A4 probe	cgg tca cgc ctc gcc cca ct - NH2	1234
h3A4 arrestor	<u>tgt ggg gcg agg cg</u>	1235
h3A4 invader	cag cac agg ctg tfg acc atc ata aaa c	1236
h3A4 stacking oligo	<u>cuu-uuc-cau-acu-uuu-uau-gac-auu-c</u>	1237
SRT		
FRET		
Set 1		

FIG. 47A-20

h3A4 probe	cgg tca cgc ctg atc ata aaa gcc c -NH2	1238
h3A4 arrestor	<u>ggg ctt tta tga tca tca ggc g</u>	1239
h3A4 invader	cag cac agg ctg ttg acc c	1240
h3A4 stacking oligo	<u>cac act ttt cca tac tct tta tg</u>	1241
SRT		
FRET		

Set 2		
h3A4 probe	aac gag gcg cac cca ttg gat gaa g - NH2	1242
h3A4 arrestor	<u>ctt cat cca atg ggt gcg c</u>	1243
h3A4 invader	gta cag aat ccc cgg tta ttt atg cag ta	1244
h3A4 stacking oligo	<u>ccc atc ttc att tca gag</u>	1245
SRT		
FRET		

Set 1		
h3A5 probe	gtg gcg tat cgt gtc taa ttt caa g	1246
h3A5 invader	aat ggg ttt ttc tgg ttg aag aag tcc ttg a	1247
Capture Sequence		

Set 2/Set 3		
h3A5 probe	AACGAGGCGCACCCGGTGCTAAATTTCAAG	1248
h3A5 probe	AACGAGGCGCACCCGGTGCTAAATTTCAAGGG-Pi	1249
h3A5 arrestor	<u>CTTGAAATTAGACACGGTGCG-NH2</u>	1250
h3A5 invader	aat ggg ttt ttc tgg ttg aag aag tcc ttg a	1251
SRT		
FRET		

Set 4		
h3A5 probe	AACGAGGCGCACCCGGTGCTAAATTTCAAG	1252
h3A5 arrestor	<u>CTTGAAATTAGACACGGTGCG-NH2</u>	1253
h3A5 invader	aat ggg ttt ttc tgg ttg aag aag tcc ttg a	1254
h3A5 stacking oligo	ggg atc tgt gtt tct tta caa ggt	1255
SRT		
FRET		

Set 5

FIG. 47A-21

h3A5 probe	AACGAGGCGCACCGTGTCTAATTTCAAG	1256
h3A5 arrestor	<u>ctt gaa att aga cac ggt tct c</u>	1257
h3A5 invader	ggg ttt tct ggt tga aga agt cct tga	1258
h3A5 stacking oligo	<u>ggg atc tct gtt tct</u>	1259
SRT		
FRET		
Set 6		
h3A5 probe	AACGAGGCGCACCGTGTCTAATTTCAAGGG-NH2	1260
h3A5 arrestor	<u>CCCTTGAAATTAGACACGGTGCG-NH2</u>	1261
h3A5 invader	aat ggg ttt ttc tgg ttg aag aag toc ttg a	1262
SRT		
FRET probe	FL- <u>caa-c(cy3)g-ctt-cct-ccg</u>	1263
Set 7/Set 8		
h3A5 probe	aac gag gcg cac cgt gtc taa ttt caa gg-NH2	1264
h3A5 probe	aac gag gcg cac cgt gtc taa ttt caa gg	1265
h3A5 arrestor	<u>cct tga aat tag aca cgg tgc gc-NH2</u>	1266
h3A5 arrestor	<u>cct tga aat tag aca cgg tgc gc</u>	1267
h3A5 invader	aat ggg ttt ttc tgg ttg aag aag toc ttg a	1268
h3A5 stacking oligo	gga tct gtg ttt ctt tac aag gtt tga agg ag	1269
SRT		
FRET		
Set 9		
h3A5 probe	aac gag gcg cac cgt gtc taa ttt caa-NH2	1270
h3A5 arrestor	<u>ttg aaa tta gac acg gtg cgc-NH2</u>	1271
h3A5 invader	aat ggg ttt ttc tgg ttg aag aag toc ttg a	1272
h3A5 stacking oligo	ggg gat ctg tgt ttc ttt aca agg	1273
SRT		
FRET		
Set 10		
h3A5 probe	aac gag gcg cac cgt gtc taa ttt ca - NH2	1274
h3A5 arrestor	<u>tga aat tag aca cgg tgc gc</u>	1275
h3A5 invader	ggg ttt tct ggt tga aga agt cct tga	1276
h3A5 stacking oligo	<u>agg gga tct gtg ttt ct</u>	1277

FIG. 47A-22

SRT
FRET

Set 1	
h3A5 probe	tgg cgt atc tga ccc ttg ggg aat
h3A5 invader	gaa gag cat aag ttg gaa tca cca cca ta
Capture Sequence	

1278
1279

Set 1	
h3A5 probe	ata cgg ttg gtc ctc tca agt cta
h3A5 invader	ccc cat tga ttg cca cat ctt tct tgc aac
Capture Sequence	

1280
1281

Set 2/Set 3	
h3A5 probe	aac gag gcg cac gcg tgt cta att tc - NH2
h3A5 arrestor	<u>gaa att aga cac gcg tgc gc</u>
h3A5 invader	ggg ttg tct ggt tga aga agt cct tc
h3A5 stacking oligo	<u>ccg ggg atc tgt gtt tc</u>
SRT	
FRET	

1282
1283
1284
1285

h3A5 probe	ccg tca cgc ctc gcg tgt cta att tc -NH2
h3A5 arrestor	<u>gaa att aga cac gcg agg cg</u>
h3A5 invader	ggg ttg tct ggt tga aga agt cct tc
h3A5 stacking oligo	<u>ccg ggg atc tgt gtt tc</u>
SRT	
FRET	

1286
1287
1288
1289

Set 1	
h3A5 probe	aac gag gcg cag ttc ata cgt tcc -NH2
h3A5 arrestor	<u>gga acg tat gaa ctg cgc</u>
h3A5 invader	cca gca cag gga gtt gac ca
h3A5 stacking oligo	<u>cca cat ttg tcc ata ctt t</u>
SRT	
FRET	

1290
1291
1292
1293

Set 2

FIG. 47A-23

h3A5 probe	cgg tca cgc ctg ttc ata cgt tcc -NH2	1294
h3A5 arrestor	<u>gga acg tat gaa cag gcg</u>	1295
h3A5 invader	cca gca cag gga gtt gac ca	1296
h3A5 stacking oligo	<u>cca cat ttt tcc ata ctt t</u>	1297
SRT		
FRET		
Set 1-Set 4		
h3A5 probe	aac gag gcg cac agt tga cct tca	1298
h3A5 probe	aac gag gcg cac agt tga cct tca	1299
h3A5 probe	aac gag gcg cac agt tga cct tca - HEX	1300
h3A5 arrestor	<u>tga agg tca act gtg cgc</u>	1301
h3A5 invader	gtg atg gcc agc aca ggg c	1302
h3A5 stacking oligo	<u>tac gtt ccc cac att ttt c</u>	1303
h3A5 stacking oligo	tac gtt ccc cac att ttt c	1304
SRT		
FRET		
Set 5		
h3A5 probe	cgg tca cgc ctc agt tga cct tca	1305
h3A5 arrestor	<u>tga agg tca act gag gcg</u>	1306
h3A5 invader	gtg atg gcc agc aca ggg c	1307
h3A5 stacking oligo	<u>tac gtt ccc cac att ttt c</u>	1308
SRT		
FRET		
Set 6		
h3A5 probe	aac gag gcg cac tcc tct caa gt -NH2	1309
h3A5 arrestor	<u>act tga gag gag tgc gc</u>	1310
h3A5 invader	cca ttg att tca aca tct ttc ttg caa ga	1311
h3A5 stacking oligo	<u>cta ata gca act ggg aat aat c</u>	1312
SRT		
FRET		
Set 7		
h3A5 probe	cgg tca cgc ctc tcc tct caa gt - NH2	1313
h3A5 arrestor	<u>act tga gag gag agg cg</u>	1314

FIG. 47A-24

h3A5 invader	cca ttg att tca aca tct ttc ttg caa ga	1315
h3A5 stacking oligo	<u>cta ata gca act ggg aat aat c</u>	1316
SRT		
FRET		
Set 8		
h3A5 probe	aac gag gcg cac agt tga cct tc - NH2	1317
h3A5 arrestor	<u>tga agg tca act gtg cgc</u>	1318
h3A5 invader	gtg atg gcc agc aca ggg c	1319
h3A5 stacking oligo	<u>ata cgt tcc cca cat ttt tc</u>	1320
SRT		
FRET		
Set 1		
h3A7 Probe	tgg cgt atc tgg att aaa tct taa aag	1321
h3A7 Invader	gac ttt tat tga gag aac gaa tgg atc taa a	1322
Capture Oligo		
Set 2		
h3A7 Primary Probe	AACGAGGCGCACTGGATTAAATCTTAAAG	1323
h3A7 Invader	gac ttt tat tga gag aac gaa tgg atc taa a	1324
h3A7 Arrestor	<u>CTTTAAGATTTAATCCAGTGCG-NH2</u>	1325
SRT		
FRET		
Set 3		
h3A7 Primary Probe	AACGAGGCGCACTGGATTAAATCTTAAAG	1326
h3A7 Invader	gac ttt tat tga gag aac gaa tgg atc taa a	1327
h3A7 Arrestor	<u>CTTTAAGATTTAATCCAGTGCG-NH2</u>	1328
h3A7 Stacking Oligo	<u>ctt ctt ggt gtt ttc ca</u>	1329
SRT		
FRET		
Set 4		
h3A7 Probe	agg agc cac tca tcc ctt gac t	1330
h3A7 Invader oligo	ctt agg gaa atc agg ctc cac tta cgg ta	1331
Capture Oligo		

FIG. 47A-25

Set 5/Set 6	AACGAGGCGCACCTCATCCCTTGACT	1332
h3A7 Primary Probe	AACGAGGCGCACCTCATCCCTTGACT-NH2	1333
h3A7 Primary Probe	<u>AGTCAAGGGATGAGGTGCG</u> -NH2	1334
h3A7 Arrestor	ctt agg gaa atc agg ctc cac tta cgg ta	1335
h3A7 Invader oligo		
SRT		
FRET		
Set 7 - Set 10	aac gag gcg cac ctc atc cct tga c-NH2	1336
h3A7 Primary Probe	<u>gtc aag gga tga ggt gcg c</u> -NH2	1337
h3A7 Arrestor	ctt agg gaa atc agg ctc cac tta cgg ta	1338
h3A7 Invader oligo	tca gcc ttg aga aca atg ggt ttg tct gtt ag3'	1339
h3A7 Stacking Oligo	<u>tca gcc ttg aga aca atg ggt ttg tct g</u>	1340
h3A7 Stacking Oligo	<u>ctc agc</u> ctt tag aac aat ggg ttg ttc t	1341
h3A7 Stacking Oligo	<u>ctc agc ctt tag aac aat ggg ttg ttc t</u>	1342
SRT		
FRET		
Set 11	aac gag gcg cac ctc atc cct tga-NH2	1343
h3A7 Primary Probe	aac gag gcg cac ctc atc cct tga c	1344
h3A7 Arrestor	<u>tca agg gat gag gtg cgc</u> -NH2	1345
h3A7 Invader oligo	ctt agg gaa atc agg ctc cac tta cgg ta	1346
h3A7 Stacking Oligo	ctc agc ctt tag aac aat ggg ttg ttc tgt tag	1347
SRT		
FRET		
Set 1	ata cgg ttg gta aag taa ttg gag gt	1348
h3A7 Probe	gaa gcc cgt ctt cat ttc agg gtt cta ttg c	1349
h3A7 Invader		
Capture Sequence		

FIG. 47A-26

Set 2	AACGAGGCGCACGTAAAGTAATTTGAGGT	1350
h3A7 Primary Probe	gaa gcc cgt ctt cat ttc agg gtt cta ttt c	1351
h3A7 Invader	<u>ACCTCAAATTACTTTACGTGCG-NH2</u>	1352
h3A7 Arrestor		
SRT		
FRET		
Set 3	AACGAGGCGCACGTAAAGTAATTTGAGGT	1353
h3A7 Primary Probe	gaa gcc cgt ctt cat ttc agg gtt cta ttt c	1354
h3A7 Invader	<u>ACCTCAAATTACTTTACGTGCG-NH2</u>	1355
h3A7 Arrestor	<u>ctc tgg tgt tct ggg</u>	1356
h3A7 Stacking Oligo		
SRT		
FRET		
Set 1	ccg tca cgc ctc gtc ata aat acc cc - NH2	1357
h3A7 probe	<u>ggg gtc ttt atg acg agg cg</u>	1358
h3A7 arrestor	gcc agc ata ggc tgt tga cac	1359
h3A7 invader	<u>aga ctt ttc tat act ttt tat aac att c</u>	1360
h3A7 stacking oligo		
SRT		
FRET		
Set 2 - Set 4	aac gag gcg cac gtc ata aat acc cc -NH2	1361
h3A7 probe	aac gag gcg cac gtc ata aat acc cc	1362
h3A7 probe	aac gag gcg cac gtc ata aat acc cc - HEX	1363
h3A7 arrestor	<u>ggg gta ttt atg acg tgc gc</u>	1364
h3A7 invader	gcc agc ata ggc tgt tga cac	1365
h3A7 stacking oligo	<u>aga ctt ttc tat act ttt tat aac att c</u>	1366
SRT		
FRET		
Set 1	ccg tca cgc ctc gat taa atc tta aaa gct t - NH2	1367
h3A7 probe	<u>aag ctt tta aga ttt aat cga ggc g</u>	1368
h3A7 arrestor	gac ttt tat tga gag aac gaa tgg atc taa tgc	1369
h3A7 invader		

FIG. 47A-27

h3A7 stacking oligo	<u>ctt ggt gtt ttc cac aaa g</u>	1370
SRT		
FRET		
Set 2		
h3A7 probe	aac gag ggc cac gat taa atc tta aaa gct t -NH2	1371
h3A7 arrestor	<u>aag ctt tta aga tt aat cgt gcg c</u>	1372
h3A7 invader	gac tt tat tga gag aac gaa tgg atc taa tgc	1373
h3A7 stacking oligo	<u>ctt ggt gtt ttc cac aaa g</u>	1374
SRT		
FRET		
Set 1		
h3A7 probe	cgc tca cgc ctg tca tcc ctt g - NH2	1375
h3A7 arrestor	<u>caa ggg atg cac ggc g</u>	1376
h3A7 invader	gga aat cag gct cca ctt acg gtc a	1377
h3A7 stacking oligo	<u>act cag cct tta gaa caa tg</u>	1378
SRT		
FRET		
Set 1		
h3A7 probe	cgc tca cgc ctg taa agt aat ttg agg tc -NH2	1379
h3A7 arrestor	<u>gac ctc aaa tta ctt tag agg cg</u>	1380
h3A7 invader	cgt ctt cat ttc agg gtt cta tt ga	1381
h3A7 stacking oligo	<u>tct ggt gtt ctg gg</u>	1382
SRT		
FRET		
Set 2		
h3A7 probe	aac gag ggc cac taa agt aat ttg agg tc - NH2	1383
h3A7 arrestor	<u>gac ctc aaa gga ctt tag tgc gc</u>	1384
h3A7 invader	cgt ctt cat ttc agg gtt cta tt ga	1385
h3A7 stacking oligo	<u>tct ggt gtt ctg gg</u>	1386
SRT		
FRET		

FIG. 47A-28

Set 1

r4A1 Probe
r4A1 Invader
Capture Sequence

tgg-cgt-atc-tag-gct-ttg-ctt-cc
ttc atg tag tca ggg tca tag aca att aag a

1387
1388

Set 2

r4A1 Primary Probe
r4A1 Arrestor
r4A1 Arrestor
r4A1 Invader
FRET Probe 1

AACGAGGCGCACTAGGCTTTGCTTCC
GGAAGCAAAGCCTAGTGCG-NH2
gga agc aaa gcc tag tgc gc-NH2
ttc atg tag tca ggg tca tag aca att aag a

1389
1390
1391
1392

Set 3

r4A1 Primary Probe
r4A1 Arrestor
r4A1 Invader
SRT
FRET Probe 1

aac gag gcg cac tag gct ttg ctt ccc-NH2
ggg aag caa agc cta gtg cgc-NH2
ttc atg tag tca ggg tca tag aca att aag a

1393
1394
1395

Set 4

r4A1 Primary Probe
r4A1 Arrestor
r4A1 Stackers
r4A1 Invader
SRT
FRET Probe 1

aac gag gcg cac tag gct ttg ctt c-NH2
gaa gca aag cct agt gcg c
ccc aga acc atc gag gaa agg c
ttc atg tag tca ggg tca tag aca att aag a

1396
1397
1398
1399

Set 5

r4A1 Primary Probe
r4A1 Arrestor
r4A1 Invader
r4A1 Stackers
r4A1 Stackers
SRT
FRET Probe 1

aac gag gcg cac tag gct ttg ctt-NH2
aag caa agc cta gtg cgc-NH2
ttc atg tag tca ggg tca tag aca att aag a
ccc cag aac cat cga gga aag g
ccc cag aac cat cga gga aag g

1400
1401
1402
1403
1404

Set 6

FIG. 47A-29

r4A1 Primary Probe	aac gag gcg cac tag gct ttg ct-NH2	1405
r4A1 Primary Probe	aac gag gcg cac tag gct ttg ct - HEX	1406
r4A1 Probe	aac gag gcg cac tag gct ttg ct	1407
r4A1 Arrestor	<u>agc aaa gcc tag tgc gc-NH2</u>	1408
r4A1 Arrestor	<u>agc aaa gcc tag tgc gc</u>	1409
r4A1 Invader	ttc atg tag tca ggg tca tag aca att aag a	1410
r4A1 Stack	tcc cca gaa cca tgc agg aaa gg	1411
r4A1 Stack	<u>tcc cca gaa cca tgc agg aaa gg</u>	1412

SRT
FRET Probe 1

Set 1		
r4A1 Probe	ata cgg ttg gtc acc tgc c	1413
r4A1 Invader	agg aga tat gtt gaa aga tt cta tag agg ac	1414
Capture Sequence		

Set 2		
r4A1 Primary Probe	AACGAGGGCGCACGTCCTTGACCTGCC	1415
r4A1 Arrestor	<u>GGCAGGTCAAGACGTGCG-NH2</u>	1416
r4A1 Invader	agg aga tat gtt gaa aga tt cta tag agg ac	1417
SRT		
FRET Probe 1		

Set 3		
r4A1 Primary Probe	AACGAGGGCGCACGTCCTTGACCTGC-Pi	1418
r4A1 Arrestor	<u>GGCAGGTCAAGACGTGCG-NH2</u>	1419
r4A1 Invader	agg aga tat gtt gaa aga tt cta tag agg ac	1420
SRT		
FRET Probe 1		

Set 1		
r4A1 Probe	tgg cgt atc tta gat gga gla agg a	1421
r4A1 Invader	att cct cat aat tca aaa ggg act tag tag gt	1422

FIG. 47A-31

r4A2 Arrestor	<u>caa ggg gcc ttc ttg gcg c-NH2</u>	1439
r4A2 Invader	cct tga aca gca cca gaa ata gac tga gca c	1440
SRT		
FRET Probe 1		
Set 4		
r4A2 Probe	aac gag gcg cac aga agg ccc ctt gg-NH2	1441
r4A2 Probe	aac gag gcg cac aga agg ccc ctt	1442
r4A2 Probe	aac gag gcg cac aga agg ccc ctt - HEX	1443
r4A2 Arrestor	<u>cca agg ggc ctt ctg tgc gc-NH2</u>	1444
r 4A2 Arrestor	<u>aag ggg cct tct gtg cgc</u>	1445
r4A2 Invader	cct tga aca gca cca gaa ata gac tga gca c	1446
SRT		
FRET Probe 1		
Set 1		
r4A3 Probe	aac gag gcg cac ttg aca gag tcc gc-NH2	1447
r4A3 Arrestor	<u>gcg gac tct gtc aag tgc gc-NH2</u>	1448
r4A3 Invader	gct tct ccc att tgt cta gca tta taa	1449
SRT		
FRET Probe 1		
Set 2		
r4A3 Probe	aac gag gcg cac ttg aca gag tcc g-NH2	1450
r4A3 Arrestor	<u>cgg act ctg tca agt gcg c-NH2</u>	1451
r4A3 Invader	gct tct ccc att tgt cta gca tta taa	1452
r4A3 stacking oligo	cca tga tt tga cat agg gtt tga gga tg	1453
SRT		
FRET Probe 1		
Set 3		
r4A3 Probe	aac gag gcg cac ttg aca gag tcc-NH2	1454
r4A3 Probe	aac gag gcg cac ttg aca gag tcc	1455
rCYP 4A3 Probe	aac gag gcg cac ttg aca gag tcc - HEX	1456
r4A3 Arrestor	<u>gga ctc ttg caa gtg cgc-NH2</u>	1457
rCYP 4A3 Arrestor	<u>gga ctc ttg caa gtg cgc</u>	1458
r4A3 Invader	gct tct ccc att tgt cta gca tta taa	1459

FIG. 47A-32

r4A3 stacking oligo	gcc atg att ttg aca tag ggt ttg agg atg	1460
SRT		
FRET Probe 1		
<hr/>		
Set 1		
r2B1 probe	cgg agc ctc tgc ggt cat caa g	1461
r2B1 invader	tgg ata act gca tca gtg tat ggc att tta a	1462
Capture Sequence		
Set 2/ Set 3		
r2B1 probe	gtg-gcg-tat-ctg-cgg-tca-tca-ag	1463
r2B1 probe	gtg-gcg-tat-ctg-cgg-tca-tca-a	1464
r2B1 invader	tgg ata act gca tca gtg tat ggc att tta a	1465
Capture Sequence		
Set 4		
r2B1 probe	tg-gcg-tat-ctg-cgg-tca-tca-a	1466
r2B1 invader	tgg ata act gca tca gtg tat ggc att tta a	1467
Capture Sequence		
Set 5 - Set 7		
r2B1 probe	aac-gag-gcg-cac-ctg-cgg-tca-tca-a	1468
r2B1 arrestor	<u>ttg-atg-acc-gca-ggt-gcg-cc-NH2</u>	1469
r2B1 arrestor	<u>ttg-atg-acc-gca-ggt-gcg-cc-Pi</u>	1470
r2B1 arrestor	<u>ttg-atg-acc-gca-ggt-gcg-cc-OH</u>	1471
r2B1 invader	tgg ata act gca tca gtg tat ggc att tta a	1472
SRT		
FRET		
Set 8		
r2B1 probe	aac-gag-gcg-cac-ctg-cgg-tca-tca-a	1473
r2B1 arrestor	<u>ttg-atg-acc-gca-ggt-gcg-cc-Pi</u>	1474
r2B1 invader	tgg ata act gca tca gtg tat ggc att tta a	1475
r2B1 stacker	ggg ttg gta gcc tgt gtg agc cga t	1476
SRT		
FRET		

FIG. 47A-33

Set 9	aac-gag-gcg-cac-cfg-cgg-tca-tca-a-NH2 <u>ttg-atg-acc-gca-ggt-gcg-NH2</u> tgg ala act gca tca tgc tat ggc att tta a	1477 1478 1479
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		
Set 10	ggc-aac-gag-gca-cac-cfg-cgg-tca-tca-ag-Pi <u>ttg-atg-acc-gca-ggt-gcg-cc-Pi</u> tgg ala act gca tca tgc tat ggc att tta a	1480 1481 1482
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		
Set 11	aac gag ggg cac cfg cgg tca tca ag-NH2 ctt gat gac cgc agg tgc c-NH2 tgg ala act gca tca tgc tat ggc att tta a	1483 1484 1485
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		
Set 12	aac gag gcg cac cfg cgg tca tca agg-NH2 <u>cct tga tga ccg cag gtc cg-NH2</u> tgg ala act gca tca tgc tat ggc att tta a	1486 1487 1488
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		
Set 13	atg acg tga cag acc tgc ggt cat caa g-NH2 <u>ctt gat gac cgc agg tct gt-NH2</u> tgg ala act gca tca tgc tat ggc att tta a	1489 1490 1491
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		

FIG. 47A-34

Set 14	aac gag gcg cac ctg agg tca tca a-NH2 <u>ttg atg acc tca ggt gcg-NH2</u> tgg ata act gca tca gtg tat ggc att tta a	1492 1493 1494
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		
Set 15	cag tca cgt ctc ctg cgg tca tca ag-NH2 <u>ctt gat gac cgc agg aga cg-NH2</u> tgg ata act gca tca gtg tat ggc att tta a	1495 1496 1497
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
SRT		
FRET		
Set 16	cag tca cgt ctc act gcg gtc atc aag-NH2 gtg gat aac tgc atc agt gta tgg cat ttt c <u>ctt gat gac cgc agt gag acg-NH2</u>	1498 1499 1500
r2B1 probe		
r2B1 invader		
r2B1 arrestor		
SRT		
FRET		
Set 17	cag tca cgt ctc act gcg gtc atc aa-NH2 <u>ttg atg acc gca gtg aga cg-NH2</u> gtg gat aac tgc atc agt gta tgg cat ttt c ggg ttg gta gcc tgt gtg agc cga t	1501 1502 1503 1504
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
r2B1 stacker		
SRT		
FRET		
Set 18	cag tca cgt ctc act gcg gtc atc a-NH2 <u>tga tga ccg cag tga gac g-NH2</u> gtg gat aac tgc atc agt gta tgg cat ttt c agg gtt ggt agc ctg tgt gag ccg a	1505 1506 1507 1508
r2B1 probe		
r2B1 arrestor		
r2B1 invader		
r2B1 stacker		
SRT		
FRET		

FIG. 47A-35

Set 19

r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

cag tca cgt ctc act gcg gtc atc aag-NH2
ctt gat gac cgc agt gag acg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
ggg tgg tag cct gtg tga gcc gat c

1509
1510
1511
1512

Set 20

r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

cag tca cgt ctc act gcg gtc at-NH2
atg acc gca gtg aga cg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
caa ggg ttg gta gcc tgt gtg agc c

1513
1514
1515
1516

Set 21

r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

cag tca cgc ctc act gcg gtc atc a-NH2
tga tga ccg cag tga gcc g-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
agg gtt ggt agc ctg tgt gag ccg a

1517
1518
1519
1520

Set 22

r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker

cag tca cgc ctc act gcg gtc atc-NH2
gat gac cgc agt gag gcg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
aag ggt tgg tag ccg gtg tg

1521
1522
1523
1524

Set 23

r2B1 probe
r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT

cag tca cgc ctc act gcg gtc at-NH2
ccg tca cgc ctc act gcg gtc at
atg acc gca gtg agg cg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
caa ggg ttg gta gcc tgt gtg agc c

1525
1526
1527
1528
1529

FIG. 47A-36

FRET			
Set 1			
r2B1 invader	atg gtg tct ttg gtg act ctg tgt ggt aca		1530
r2B1 probe	aac-gag-gcg-cac-tcc-aat-agg-gac-aag		1531
r2B1 arrestor	ctt-gtc-cct-att-gga-gtg-cgc-c		1532
SRT			
FRET			
Set 1			
r2B1 probe	gcg gcg tac agc cgg tgt gag c		1533
r2B1 invader	cat ttt act gcg gtc atc aag ggt tgg tc		1534
Capture Sequence			
r2B1 probe	tgg cgt atg agc cgg tgt gag c		1535
r2B1 invader	cat ttt act gcg gtc atc aag ggt tgg tc		1536
Capture Sequence			
Set 1			
r2B2 invader	gga tga ctg cat cag tgt atg gca ttt tgc		1537
r2B2 probe	aac-gag-gcg-cac-gta-cga-tca-tca-agg		1538
r2B2 arrestor	cct-tga-tga-tcg-tac-tac-gtg-cgc-c-NH2		1539
SRT			
FRET			
Set 1			
r2B2 invader	atg gtg tct ttg gtg act ctg tgt ggt aac		1540
r2B2 probe	tgg cgt atg acc aat tgg ggc aa		1541
r2B2 stacker	gat ctg caa atc tct gaa tct cgt gga tg		1542
r2B2 invader stacker	tct tgg aga gca ggt acc ctc gga ac		1543
Set 2			
r2B2 probe	tgg cgt atg acc aat tgg ggc aag		1544
r2B2 invader	atg gtg tct ttg gtg act ctg tgt ggt aac		1545
r2B2 stacker	atc tgc aaa tct ctg aat ctc gtg gat ga		1546
r2B2 invader stacker	tct tgg aga gca ggt acc ctc gga ac		1547

FIG. 47A-37

Set 3	aac-gag-gcg-cac-acc-aat-tgg-ggc-aag	1548
r2B2 probe	aac gac gcg cac acc aat tgg ggc aag	1549
r2B2 probe	<u>ctt-gcc-cca-att-ggt-gtg-cgc-c-NH2</u>	1550
r2B2 arrestor	atg gtg tct ttg gtg act ctg tgt ggt aac	1551
r2B2 invader		
SRT		
FRET		
Set 4	aac-gag-gcg-cac-acc-aat-tgg-ggc-aag-Pi	1552
r2B2 probe	<u>ctt-gcc-cca-att-ggt-gtg-cgc-c-Pi</u>	1553
r2B2 arrestor	atg gtg tct ttg gtg act ctg tgt ggt aac	1554
r2B2 invader		
SRT		
FRET		
Set 5	<u>ctt gcc cca att ggt gtg cg-NH2</u>	1555
r2B2 arrestor	aac-gag-gcg-cac-acc-aat-tgg-ggc-aag-NH2	1556
r2B2 probe	atg gtg tct ttg gtg act ctg tgt ggt aac	1557
r2B2 invader	atc tgc aaa tct ctg aat ctc gtg gat ga	1558
r2B2 stacker		
SRT		
FRET		
Set 6	ggc-aac-gag-gca-cac-caa-ttg-ggg-caa-g	1559
r2B2 probe	<u>ctt-gcc-cca-att-ggt-gtg-cgc-c-NH2</u>	1560
r2B2 arrestor	atg gtg tct ttg gtg act ctg tgt ggt aac	1561
r2B2 invader		
SRT		
FRET		
Set 7	aac gag gcg cac acc aat tgg ggc aag atc-NH2	1562
r2B2 probe	<u>gat ctt gcc cca att ggt gtg cg-NH2</u>	1563
r2B2 arrestor	atg gtg tct ttg gtg act ctg tgt ggt aac	1564
r2B2 invader		
SRT		
FRET		

FIG. 47A-38

Set 8	aac gag gcg cac acc aat tcg ggc aag-NH2	1565
r2B2 probe	<u>ctt gcc cga att ggt gfg cg-NH2</u>	1566
r2B2 arrestor	atg gfg tct ttg gfg act ctg tgt ggt aac	1567
r2B2 invader	atc tgc aaa tct ctg aat ctc gfg gat ga	1568
r2B2 stacker		
SRT		
FRET		
Set 9		
r2B2 probe	cag tca cgt ctc atg gfg gcc tgt g-NH2	1569
r2B2 invader	gta tgg cat ttt ggt acg atc atc aag ggc	1570
r2B2 arrestor	<u>cac agg cca cca tga gac g-NH2</u>	1571
SRT		
FRET		
Set 10		
r2B2 probe	cag tca cgt ctc aga gcc aat cac ctg-NH2	1572
r2B2 invader	cga tca tca agg gat ggt ggc ctg tgc	1573
r2B2 arrestor	<u>cag gfg att gcc tct gag acg-NH2</u>	1574
r2B2 stacker	atc aat ctc ctt ttg gac ttt ctc tgc g	1575
SRT		
FRET		
Set 11		
r2B2 probe	cag tca cgt ctc aga gcc aat cac ct-NH2	1576
r2B2 invader	cga tca tca agg gat ggt ggc ctg tgc	1577
r2B2 arrestor	<u>agg tga ttg gct ctg aga cg-NH2</u>	1578
r2B2 stacker	gat caa tct cct ttt gga ctt tct ctg c	1579
SRT		
FRET		
Set 12		
r2B2 probe	FAM-cag tca cgt ctc aga gcc aat cac ct-NH2	1580

FIG. 47A-39

Set 13 / Set 14

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
r2B2 stacker
SRT
FRET

cag tca cgt ctc aga gcc aat cac c-NH2
ggt gat tgg ctc tga gac g-NH2
cga tca tca agg gat ggt ggc ctg tgc
gat caa tct cct ttt gga ctt tct ctg c
tga tca atc tcc ttt tgg act ttc tct gc

1581
1582
1583
1584
1585

Set 15

r2B2 probe
r2B2 arrestor
r2B2 stacker
r2B2 invader
SRT
FRET

cag tca cgt ctc aga gcc aat cac-NH2
gtg att ggc tct gag acg-NH2
ctg atc aat ctc ctt ttg gac ttt ctc tgc g
cga tca tca agg gat ggt ggc ctg tgc

1586
1587
1588
1589

Set 16

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

cag tca cgt ctc aga gcc aat cac ct-NH2
agg tga ttg cct ctg aga cg-NH2
cga tca tca agg gat ggt ggc ctg tgc
gat caa tct cct ttt gga ctt tct ctg c

1590
1591
1592
1593

Set 17

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

cag tca cgt ctc aga gcc aat cac ctg-NH2
cag ctg att gcc tct gag acg-NH2
cga tca tca agg gat ggt ggc ctg tgc
atc aat ctc ctt ttg gac ttt ctc tgc g

1594
1595
1596
1597

Set 18

r2B2 probe
r2B2 arrestor
r2B2 invader

cag tca cgt ctc aga gcc aat cac ct-NH2
agg tga ttg gct ctg agg cg-NH2
cga tca tca agg gat ggt ggc ctg tgc

1598
1599
1600

FIG. 47A-40

r2B2 stacker SRT FRET	gat caa tct cct ttt gga ctt tct ctg c	1601
Set 19		
r2B2 probe	ccg tca cgc ctc aga gcc aat cac c-NH2	1602
r2B2 arrestor	<u>ggg gat tgg ctc tga ggc g-NH2</u>	1603
r2B2 invader	cga tca tca agg gat ggt ggc ctg tgc	1604
r2B2 stacker SRT FRET	tga tca atc tcc ttt tgg act ttc tct gc	1605
Set 20-21		
r2B2 probe	ccg tca cgc ctc aga gcc aat cac-NH2	1606
r2B2 probe	ccg tca cgc ctc aga gcc aat cac	1607
r2B2 arrestor	<u>gtg att ggc tct gag gcg-NH2</u>	1608
r2B2 invader	cga tca tca agg gat ggt ggc ctg tgc	1609
r2B2 stacker	<u>ctg</u> atc aat ctc ctt ttg gac ttt ctc tgc g	1610
Set 22		
r2B2 probe	cag tca cgt ctc atg gtc aaa gta ctg tgg-NH2	1611
r2B2 invader	gga agt gct cag gat tga agg tgt ctg gc	1612
r2B2 arrestor SRT FRET	<u>cca cag tac ttt gac cat gag acg-NH2</u>	1613
Set 23		
r2B2 probe	aac gag gcg cac atg gtc aaa gta ctg tgg-NH2	1614
r2B2 arrestor	<u>cca cag tac ttt gac cat gta cgc-NH2</u>	1615
r2B2 invader SRT FRET	gga agt gct cag gat tga agg tgt ctg gc	1616
r2B2 probe	cat acg gtt ggg cct gta aga gc	1617
r2B2 invader	cat ttt ggt acg atc atc aag gga tgg tc	1618

FIG. 47A-41

r3A1 probe
r3A1 probe
r3A1 invader
r3A1 probe
r3A1 probe
r3A1 arrestor
r3A1 probe
r3A1 probe
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 probe
r3A1 probe
r3A1 probe
r3A1 invader
r3A1 probe
r3A1 arrestor
r3A1 probe
r3A1 arrestor
r3A1 probe
r3A1 arrestor
r3A1 stacker
r3A1 probe
r3A1 arrestor
r3A1 stacker
r3A1 probe
r3A1 arrestor
r3A1 stacker
r3A1 probe

agg agc cac ggg toc caa atc
FL-agg agc cac ggg toc caa atc
toc cct gtt tct tga aaa gtc cat gfg tga
F-tog cgt agt cgg gtc cca aat c
cat-clt-cgc-gga-cgg-gtc-cca-aat-c
gat-ttg-gga-ccc-ggt-gcg-cc-NH2
aac-gag-gcg-cac-cgg-gtc-cca-aat-c-NH2
cat-clt-cgc-gga-cgg-gtc-cca-aat-c - NH2
gga ttt ggg acc cgt ccg cga - NH2
gga-ttt-ggg-acc-cgt-ccg-cg -NH2
gga ttt ggg acc cgt ccg c - NH2
gga ttt ggg acc cgt ccg - NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2
gat-ttg-gga-ccc-ggt-gcg-NH2
gat-ttg-gga-ccc-ggt-gc-NH2
gat-ttg-gga-ccc-ggt-gcg-ccf-NH2
gat-ttg-gga-ccc-ggt-gcg-ccf-c-NH2

aac gag gcg cac cgg gtc cca aat c-Pi
tcc cct gtt tct tga aaa gtc cat gfg tga
aac gag gcg cac cgg gtc cca aat c-NH2
gat ttg gga ccc ggt gcg-NH2
aac gag gcg cac cgg gtc cca aat c-NH2
gga ttt ggg acc cgg tgc gc-NH2
aac gag gcg cac cgg gtc cca aat-NH2
att tgg gac ccg gtc cgc-NH2
cgg tag agg agc acc agg acg
aac gag gcg cac cgg gtc cca aa-NH2
ttt ggg acc cgg tgc gc-NH2
tcc gta gag gag cac cag ga
cag tca cgt ctc cgg gtc cca aa-NH2
ttt ggg acc cgg aga cg-NH2
tcc gta gag gag cac cag ga
cgg tca cgc ctc cgg gtc cca aa-NH2

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FIG. 47A-42

r3A1 arrestor	<u>ttt ggg acc cgg agg cg-NH2</u>	1652
r3A1 stacker	<u>tcc qta gag gag cac cag ga</u>	1653
r3A1 stacker	<u>tcc qta gag gag cac cag ga</u>	1654
r3A1 probe	aac gag gcg cac cgg gtc cca-NH2	1655
r3A1 arrestor	<u>tgg gac ccg gtg cgc-NH2</u>	1656
r3A1 probe	cgg tca cgc ctc cgg gtc cca-NH2	1657
r3A1 arrestor	<u>tgg gac ccg gag gcg-NH2</u>	1658
r3A1 stacker	aat ccg tag agg agc acc agg	1659
r3A1 probe	aac gag gcg cac cgg gtc cca	1660
r3A2 invader	ttc ctt gtt tct taa aaa ttc cat gtc taa	1661
r3A2 invader	att tt cga tac tt tta tag cac tcc atc	1662
r3A2 probe	tgg cgt atc tgg gtt cca agt c	1663
r3A2 probe	aac gag gcg cac gtc aaa tct ccc taa	1664
r3A2 probe	aac-gag-gcg-cac-tgg-gtt-cca-agt-c	1665
r3A2 arrestor	<u>tta ggg aga ttt gac gtg cgc c - NH2</u>	1666
r3A2 arrestor	<u>gac-ttg-gaa-ccc-agt-gcg-cc-NH2</u>	1667
r3A2 probe	aac gag gcg cac tgg gtt cca agt c	1668
r3A2 probe	aac-gag-gcg-cac-tgg-gtt-cca-agt-c-Pi	1669
r3A2 arrestor	<u>gac ttg gaa ccc agt gcg-NH2</u>	1670
r3A2 probe	aac gag gcg cac tgg gtt cca agt cg-NH2	1671
r3A2 arrestor	<u>cga ctt gga acc cag tgc gc-NH2</u>	1672
r3A2 probe	aac gag gcg cac aac cat caa gtt cta ta-NH2	1673
r3A2 invader	gga atc gtc act act gac cct ttg ggt ata aac ac	1674
r3A2 stacker	tct tt tta cag act ctc tca agt cta tta cc	1675
r3A2 arrestor	<u>tat aga act tga tgg ttg tgc gc-NH2</u>	1676
r3A2 probe	aac gag gcg cac aac cat caa gtt cta-NH2	1677
r3A2 stacker	tat ctt tt tac aga ctc tct caa gtc tat tac c	1678
r3A2 arrestor	<u>tag aac ttg atg gtt gtg cgc-NH2</u>	1679
r3A2 probe	cag tca cgt ctc ctc ggc agg gc-NH2	1680
r3A2 invader	cac aat atc gla ggt agg agg tgc ctt aa	1681
r3A2 arrestor	<u>gcc ctg ccg agg aga cg-NH2</u>	1682
r3A2 probe	cag tca cgt ctc ctc ggc agg g-NH2	1683
r3A2 stacker	ccc cat cga tct cct cct g	1684

FIG. 47A-43

r3A2 arrestor	<u>ccc tgc cga gga gac g-NH2</u>	1685
r3A2 probe	cag tca cgt ctc ctc ggc agg-NH2	1686
r3A2 stacker	gcc cca tgc atc tcc tcc	1687
r3A2 arrestor	<u>cct gcc gag gag acg-NH2</u>	1688
r3A2 probe	cag tca cgt ctc ctc ggc ag-NH2	1689
r3A2 stacker	ggc ccc atc gat ctc ctc	1690
r3A2 arrestor	<u>ctg ccg agg aga cg-NH2</u>	1691
r3A2 probe	cog tca cgc ctc ctc ggc agg-NH2	1692
r3A2 arrestor	<u>cct gcc gag gag gcg-NH2</u>	1693
r3A2 stacker	<u>gcc</u> cca tgc atc tcc tcc	1694
r3A2 probe	cog tca cgc ctc ctc ggc agg	1695
<hr/>		
hICAM-1 probe	cog tca cgc ctc ggc ttg tgt gtt c-NH2	1696
hICAM-1 invader	ccg gga tag gtt cag gga ggc gtc	1697
hICAM-1 stacker	<u>ggt ttc atg gag gtc cct</u>	1698
hICAM-1 arrestor	<u>gaa cac aca agc cga ggc g</u>	1699
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hVCAM-1 probe	cog tca cgc ctc gcc ttt gtt tgg-NH2	1700
hVCAM-1 arrestor	<u>cca aac aaa ggc gag gcg</u>	1701
hVCAM-1 invader	ggg caa cat tga cat aaa gtg ttt gcg tac tct c	1702
hVCAM-1 stacker	<u>gtt cga att cca tgt cat c</u>	1703
hVCAM-1 probe	cog tca cgc ctc gcc ttt gtt tg-NH2	1704
hVCAM-1 arrestor	<u>caa aca aag gcg agg cg</u>	1705
hVCAM-1 stacker	<u>ggt tgc aat tcc atg tca tc</u>	1706
<hr/>		
hGAPDH probe	aac gag gcg cac gct cct gga aga tg-NH2	1707
hGAPDH arrestor	<u>cat ctt cca gga gcg tgc gcc-NH2</u>	1708
hGAPDH invader	cac ttg att ttg gag gga tct ca	1709

FIG. 47A-44

Secondary system oligos

Capture Oligo	aaa agt ggc tcc t-(biotin)c	1710
Capture Oligo	aaa aga ggc tcc gct-(biotin)c	1711
Capture Oligo	aaa atg tac gcc gct-(biotin) c	1712
Capture Oligo	aaa aga tac gcc aca gct-(biotin) c	1713
Capture Oligo	aaa acc aac cgt atg aac t-(biotin) c	1714
Capture Oligo	aaa atc ata cgc cac t-(biotin)c	1715
SRT	cgg-agg-aag-cag-ttg-gtg-tgc-ctc-gtt-gcc- <u>tt</u> -NH2	1716
SRT	cgg agg aag cag ttg gtg ccc ctc <u>gtt aa</u> -NH2	1717
SRT	cgg aag aag cag ttg gtg cgc ctc <u>gtt aa</u> -NH2	1718
SRT	cgg aag aag cag ttg gtg cgc ctc gtt <u>aa</u> -NH2	1719
SRT	cgg aag aag cag ttg gtg cgc ctc gtt <u>aa</u>	1720
SRT	cgg aag aag cag ttg gtg cgc ctc gtt <u>aa</u>	1721
SRT	cgg aag aag cag ttg gtg cgc ctc gtt <u>aa</u>	1722
SRT	cgg aag aag cag ttg gag gcg tga cgg <u>t</u> -NH2	1723
SRT	cgg aag aag cag ttg gag gcg tga cgg <u>a</u> -NH2	1724
SRT	cgg aag aag cag ttg gag gcg tga cgg <u>a</u>	1725
SRT	cgg aag aag cag ttg gag gcg tga cgg <u>t</u>	1726
SRT	cgg aag aag cag ttg gag gcg tga cgg <u>t</u>	1727
SRT	cgg aag aag cag ttg gag gcg tga cgg <u>t</u>	1728
SRT	cgg aag aag cag ttg gag gcg tga cgg a	1729
FRET probe	FL-caa c(cy3)gc ttc ctc	1730
FRET probe	FL-caa c(cy3)gc ttc ctc c	1731
FRET probe	FL-caa-c(cy3)g-ctt-cct-ccg	1732
FRET probe	FL-caa-c(cy3)g-ctt-cct-cg- <u>uu</u>	1733
FRET probe	FL-caa-c(cy3)g-ctt-cct-cg- <u>uuu-u</u>	1734
FRET probe	FL-caa-c(cy3)g-ctt-cct-cg-NH2	1735

FIG. 47A-45

Oligo sequence descriptions:

5' to 3' direction, 2'-Ome nts are bolded and underlined, internal modifications are defined in (), ASR of primary probes are underlined

C18ddC = C18 linker+dideoxy C, ddC = dideoxy C, FI = Fluorescein

Oligo Type	Oligo Sequence	SEQ ID NO
HUMAN IL-2		
Human IL-2 Probe	FI- CGAAATTAATACGCCCTTCITGGGCATGTAC -C18ddC	1736
Human IL-2 Probe	CGAAATTAATACGCCCTTCITGGGCATGTAC -C18ddC	1737
Human IL-2 Invader	CTGAAGATGTTTCAGTTCGTG- ddC	1738
Human IL-2 Invader	GAAGATGTTTCAGTTCGTG	1739
Human IL-2 Probe	TCAC TTCCTACCTTCITGGGCATGTAA	1740
Human IL-2 Probe	TCAC TTCCTACCTTCITGGGCATGTAAAC	1741
Human IL-2 Probe	TCAC TTCCTACCTTCITGGGCATGTAA- C18ddC	1742
Human IL-2 Invader	GAAGATGTTTCAGTTCGTG- ddC	1743
Human IL-2 Probe	FI- ACTTCCTACTTAATCCATTCAAAATC	1744
Human IL-2 Probe	ACTTCCTACTTAATCCATTCAAAATC - C18ddC	1745
Human IL-2 Invader	GAGTTGGGATCTTGTAATTAT-ddC	1746
Human IL-2 Probe	FI- CGTGTTCGTGGCGTATCTTAATCCATTCAAAATC	1747
Human IL-2 Probe	CGTGTTCGTGGCGTATCTTAATCCATTCAAAATC	1748
Human IL-2 Invader	GAGTTGGGATCTTGTAATTAT - ddC	1749
Human IL-2 Probe	FI- CGTGTTCGTGGCGTATCTTAATCCATTCAAAATCATCTG	1750
Human IL-2 Probe	CGTGTTCGTGGCGTATCTTAATCCATTCAAAATCATCTG	1751
Human IL-2 Probe	FI- CGTGTTCGTGGCGTATCTTAATCCATTCAAAATCATC	1752
Human IL-2 Probe	CGTGTTCGTGGCGTATCTTAATCCATTCAAAATCATC	1753
Human IL-2 Invader	GAGTTGGGATCTTGTAATTAT-ddC	1754
HUMAN β-ACTIN		
Human β -actin Probe	FI-TTCCTACTCTTGATCTTCATTGTGC	1755
Human β -actin Invader	CTCAGGAGGAGCAATGATCTT	1756
Human β -actin Invader	CTCAGGAGGAGCAATGAT	1757
Human β -actin Probe	FI-TCACTTCCTACTCTGGGICATCTTCICG -C18ddC	1758
Human β -actin Probe	TCAC TTCCTACTCTGGGICATCTTCICG -C18ddC	1759
Human β -actin Invader	GTGTTGAAGGTCCTCAACATGAT- ddC	1760
Human β -actin Invader	GGGTGTTGAAGGTCCTCAACATGAT - ddC	1761
Human β -actin Probe	FI- CGTGTTCGTGGCGTATCTGGGICATCTTCICG	1762
Human β -actin Probe	CGTGTTCGTGGCGTATCTGGGICATCTTCICG	1763
Human β -actin Invader	GGGTGTTGAAGGTCCTCAACATGAT - ddC	1764

FIG. 47A-46

GAPDH		
Human GAPDH Probe	FI- <u>TTCATACGGTTGGTAGTTGAGGTCAATG</u>	1765
Human GAPDH Probe	TTCATACGGTTGGTAGTTGAGGTCAATG	1766
Human GAPDH Invader	GGAATCATATTGGAACATGTAAACCATC	1767
Human GAPDH Probe	FI- <u>TTCATACGGTTGGCTCCTGGAAGATG</u>	1768
Human GAPDH Probe	TTCATACGGTTGGCTCCTGGAAGATG	1769
Human GAPDH Invader	CAC TTGATTTTGGAGGGATCTCA	1770
Human/Mouse/Rat GAPDH Probe	TTCATACGGTTGGTAGTTGAGGTCAATG	1771
Mouse/Rat GAPDH Invader	AGAATCATACTGGAACATGTAGACCATC	1772
Mouse GAPDH Probe	FI- <u>TGGCGTATCATGTAGTTGA</u>	1773
Mouse GAPDH Probe	TGGCGTATCATGTAGTTGA	1774
Mouse GAPDH Invader	GGAGTCATACTGGAACATGTAGACC	1775
Mouse GAPDH Probe	<u>TGGCGTATCATGTAGTTGA</u>	1776
Mouse GAPDH Invader	AGTCATACTGGAACATGTAGACA	1777
Mouse GAPDH Invader	GGAGTCATACTGGAACATGTAGACA	1778
MOUSE IL-6		
Mouse IL-6 Probe	FI- <u>TGGCGTATCTCTTTTCTCATT</u>	1779
Mouse IL-6 Probe	TGGCGTATCTCTTTTCTCATT	1780
Mouse IL-6 Invader	ACAATCAGAATTGCCATTGCACAACA	1781
MOUSE ONCOSTATIN M		
Mouse Oncostatin M Probe	FI- <u>GAAGGCAGAGGACCGTGAGGC</u>	1782
Mouse Oncostatin M Probe	GAAGGCAGAGGACCGTGAGGC	1783
Mouse Oncostatin M Invader	AAGACATCTGGTGTGTAGTGA	1784
Mouse Oncostatin M Probe	FI- <u>TGGCGTATCTCCCCAGAGAAAAGC</u>	1785
Mouse Oncostatin M Probe	TGGCGTATCTCCCCAGAGAAAAGC	1786
Mouse Oncostatin M Invader	CACTGAGCCGATGAAGCGATGGTAA	1787
Mouse Oncostatin M Probe	FI- <u>TGGCGTATCTAGGGCTCCAAAGAG</u>	1788
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCAAAGAG	1789
Mouse Oncostatin M Invader	GTGTTCAAGTTTGGAGGGGGATAA	1790
Mouse Oncostatin M Probe	FI- <u>TGGCGTATCTAGGGCTCCAAAG</u>	1791
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCAAAG	1792
Mouse Oncostatin M Invader	GTGTTCAAGTTTGGAGGGCGGATAA	1793
FRET Probe	FI-ATTCT(CY3)TCTCAGA-3'NH2	1794
FRET Probe	FI-ATTCT(CY3)TCTCAGAC-3'NH2	1795
FRET Probe	FI-ATTCT(CY3)TCTCAGACT-3'NH2	1796

FIG. 47A-47

SRT	CAGTCTGAGATGAATGATACGCCAGG-3'NH2	1797
Mouse Oncostatin M Arrestor	<u>CTTGGAGCCCTAGATA</u> -NH2	1798
Mouse Oncostatin M Arrestor	<u>CTTGGAGCCCTAGAT</u> -NH2	1799
Mouse Oncostatin M Arrestor	<u>CTTGGAGCCCTAGA</u> -NH2	1800
Mouse Oncostatin M Probe	CTGGCGTATCTAGGGCTCCA	1801
Mouse Oncostatin M Probe	CCTGGCGTATCTAGGGCTCCA	1802
Mouse Oncostatin M Invader	GTGTTCAGGTTTTGGAGCGGATAA	1803
SRT	CAGTCTGAGATGAATGATACGCCAGG-3'NH2	1804
Arrestor	<u>CTTGGAGCCCTAGAT</u> -NH2	1805
Mouse Oncostatin M Probe	Fl-CTCTCTCGTCTCTAGGGCTCCA	1806
Mouse Oncostatin M Probe	CTCTCTCGTCTCTAGGGCTCCA	1807
Mouse Oncostatin M Invader	GTGTTCAGGTTTTGGAGCGGATAA	1808
SRT	CAGTCTGAGATGAATGAGACGAGAGAT-NH2	1809
Mouse Oncostatin M Arrestor	CTTGGAGCCCTAGAG-NH2	1810
Mouse Oncostatin M Probe	Fl- TGGCGTATCTAGGGCTCCA	1811
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCA	1812
Mouse Oncostatin M Invader	GTGTTCAGGTTTTGGAGCGGATAA	1813
Mouse Oncostatin M Probe	TGGCGTATCTCCCGAGAGAA	1814
Mouse Oncostatin M Probe	TGGCGTATCTCCCGAGAGA	1815
Mouse Oncostatin M Invader	CACTGAGCCGATGAAGCGATGGTAA	1816
Mouse Oncostatin M Probe	TGGCGTATCTATAGGGCTC	1817
Mouse Oncostatin M Invader	GTGTGTTCAGGTTTTGGAGCGGAA	1818
Mouse Oncostatin M Probe	CTCTCTCGTCTCTTCAGGTTTTG	1819
Mouse Oncostatin M Invader	GGCAGCTCTCAGGTCAGGTGTGA	1820
Mouse Oncostatin M Invader	AGGCAGCTCTCAGGTCAGGTGTGA	1821
SRT	CAGTCTGAGATGAATGAGACGAGAGAGAT-NH2	1822
FRET Probe	Fl-ATTC(CY3)TCTCAGAC-3'NH2	1823
Mouse Oncostatin M Arrestor	<u>CAAAACCTGAAGAGA</u> -3'NH2	1824
Mouse Oncostatin M Arrestor	<u>CAAAACCTGAAGAGAC</u> -3'NH2	1825
Mouse Oncostatin M Arrestor	<u>CAAAACCTGAAGAGACG</u> -3'NH2	1826
Mouse Oncostatin M Probe	Fl- CTCTCTCGTCTCTTCAGGTTTTG	1827
Mouse Oncostatin M Probe	CTCTCTCGTCTCTTCAGGTTTTG-NH2	1828
Mouse Oncostatin M Invader	GGCAGCTCTCAGGTCAGGTGTGA	1829
Mouse Oncostatin M Stacker	GAGCGGATATAGGGCT- Biotin TEG	1830

FIG. 47A-48

HUMAN ONCOSTATIN M	
Human Oncostatin M Probe	CTCTCTCGTCTCTCTAAGGACITTA
Human Oncostatin M Probe	CTCTCTCGTCTCTCTAAGGACITTA
Human Oncostatin M Invader	GAACAGGAGTGCAAGGACCAGACA
Human Oncostatin M Probe	TCACGTCTCTCAGGTTTTG
Human Oncostatin M Probe	GTCACGTCTCTCAGGTTTTG
Human Oncostatin M Probe	AGTCACGTCTCTCAGGTTTTG
Human Oncostatin M Probe	CAGTCACGTCTCTCAGGTTTTG
Human Oncostatin M Invader	AGGCAGCTCTCAGGTCAGGTGTGA
Fret Probe 1	FI- CAAC(CY3)GCTTCCTCCG
SRT	CGGAGGAAGCAGTTGGAGACGTGACTGTGG-NH2
SRT with mismatch	CGGAAGAAAGCAGTTGGAGACGTGACTGTGG-NH2
SRT with mismatch	CGGACGAAGCAGTTGGAGACGTGACTGTGG-NH2

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FIG. 47A-49

bold indicates 2' o-methyl bases

Oligo Type	Oligo Sequence	Oligo #	SEQ ID NO
SECONDARY SYSTEM:			
SET 1			
FRET probe 1	5'-F-CAAC(CY3)GCTTCCTCCG-3'	DB04001F6	1843
secondary target	5'- CGGAAGAACGAGTTGGTGGCCTCGTTAA-NH2	649-10-01	1844
SET 2			
FRET probe 1	5'-F-CAAC(CY3)GCTTCCTCCG-3'	DB04001F6	1845
secondary target	5'-CGGAAGAACGAGTTGGAGGCGTGACGGT-NH2-3'	641-60-03	1846
<hr/>			
h2C19 designs 2			
probe	5'-AACGAGGCGCACGATGTCCATCGA-NH2-3'	971-26-09	1847
stacker	5'-TTCTTGGTGTTCTTTTACTTTCTC-3'	971-26-12	1848
invader	5'-GCAATCAATAAAGTCCCGAGGGTTGTTT	971-26-11	1849
arrestor	5'-TCGATGGACATCGTGCGC-3'	971-26-10	1850
SET 1			
h 2D6 p450 designs			
probe	5'-CCGTACGCGCTCTCACCCATCT-NH2-3'	971-11-01	1851
stacker	5'-CTGGTCGCCGCACCT-3'	971-11-04	1852
invader	5'-TGTAGGGCATGTGAGCCTGGA-3'	971-11-03	1853
arrestor	5'-AGATGGGAGAGAGGCG-3'	971-11-02	1854
SET 2			
probe	5'-CCGTACGCGCTCGAAGCCCTGT-NH2-3'	971-11-05	1855
stacker	5'-ACTTCGATGTCACGGGATGTCATATGG-3'	971-11-08	1856
invader	5'-GAGTGTCTGTTCCCTTAGGGATGCGC-3'	971-11-08	1857
arrestor	5'-ACAGGGCTTCGAGGCG-3'	971-11-06	1858
SET 2			

FIG. 47A-50

probe	5'-CCGTCACGCCCTCCCTGCTGAGAAA-NH2-3'	971-11-09	1859
stacker	5'-GCAGGAAGGCCTCCG-3'	971-11-12	1860
invader	5'-CCCGAGGCATGCACGGCGGA-3'	971-11-11	1861
arrestor	5'-CTTTCTCAGCAGGGAGGCG-3'	971-11-10	1862
SET 2			
h 2D6 shroter designs			
probe	5'-CCGTCACGCCCTCCCTGCTGAGAAA-HEX-3'	1051-12-06	1863
probe	5'-CCGTCACGCCCTCCCTGCTGAGAAA-3'	1051-12-05	1864
probe	5'-CCGTCACGCCCTCCCTGCTGAGAAA-NH2-3'	971-38-01	1865
invader	5'-CCCGAGGCATGCACGGCGGA-3'	971-11-11	1866
stacker	5'-GGCAGGAAGGCCTCC-3'	971-38-03	1867
arrestor	5'-TTTCTCAGCAGGGAGGCG-3'	971-38-02	1868
SET 2			
probe	5'-CCGTCACGCCCTCCCTGCTGAGA-NH2-3'	971-38-07	1869
invader		971-11-11	
stacker	5'-AAGGCAGGAAGGCCTCC-3'	971-38-09	1870
arrestor	5'-TCTCAGCAGGGAGGCG-3'	971-38-08	1871
SET 2			
probe	5'-CCGTCACGCCCTCCCTGCTGAGAA-NH2-3'	971-38-04	1872
invader		971-11-11	
stacker	5'-AGGCAGGAAGGCCTGG-3'	971-38-06	1873
arrestor	5'-TTCTCAGCAGGGAGGCG-3'	971-38-05	1874
SET 2			
probe	5'-CCGTCACGCCCTCCCTGCTGAGAAA-NH2-3'	971-11-09	1875
invader		971-11-11	
stacker	5'-GCAGGAAGGCCTCCG-3'	971-11-12	1876
arrestor	5'-CTTTCTCAGCAGGGAGGCG-3'	971-11-10	1877
SET 2			

FIG. 47A-51

h 2B6 p450 alt. Splice designs

probe	5'-AACGAGGCGCACCCACCATATCCC-NH2-3'	1051-48-01	1878
invader	5'-CCAGCGGTTTCCATTGGCAAAGATCAA-3'	971-01-03	1879
stacker	5'-CGGAAGAATGGGTCGACCATG-3'	971-01-04	1880
arrestor	5'-GGGATATGGTGTGCGGC-3'	1051-48-02	1881
SET 1			

probe	5'-CCGTCACGCGCTCCACCATATCCC-HEX-3'	1051-12-02	1882
probe	5'-CCGTCACGCGCTCCACCATATCCC-3'	1051-12-01	1883
probe	5'-CCGTCACGCGCTCCACCATATCCC-NH2-3'	971-01-01	1884
invader		971-01-03	
stacker		971-01-04	
arrestor		971-01-02	1885
SET 2			

probe	5'-AACGAGGCGCACCCAGAGCTGATGAG-NH2-3'	1051-48-03	1886
invader	5'-GAGAAGAGCTCAACAGAGCTGGCCGAATAA-3'	971-01-10	1887
stacker	5'-TGAAAAAGTCTGGTAGAACAAAGTTCAGC-3'	971-01-11	1888
arrestor	5'-CTCATCAGCTCTGGTGGCGC-3'	1051-48-04	1889
SET 1			

probe	5'-CCGTCACGCGCTCCAGAGCTGATGAG-NH2-3'	971-01-08	1890
		971-01-10	
		971-01-11	
		971-01-09	1891
SET 2			

h 2B6 p450 alt.splice designs2

p	5'-AACGAGGCGCACCCCTTGGAATTC-NH2-3'	1051-48-05	1892
l	5'-CTGTTCAATCTCCCTGTAGACTCTCTA-3'	1051-48-10	1893
s	5'-CGAAGCTCCTCTATCAG-3'	1051-48-09	1894
a	5'-GAAATCCAAGGGTGGCGC-3'	1051-48-06	1895
SET 1			

FIG. 47A-52

p	5'-CCGTCACGCCTCCCTTGGATTTC-NH2-3'	1051-48-07	1896
i		1051-48-10	
s		1051-48-09	
a	5'-GAAATCCAAGGGAGGCG-3'	1051-48-08	1897
SET 2			
p	5'-AACGAGGCGCACTGAGGGCC-NH2-3'	1051-48-11	1898
i	5'-GGAAGAGGAAGTGGGGTCCAA-3'	1051-48-16	1899
s	5'-CCCTTGGATTTCGGAAG-3'	1051-48-15	1900
a	5'-GGCCCTCAGTGCGC-3'	1051-48-12	1901
SET 1			
p	5'-CCGTCACGCCTCTGAGGGCC-NH2-3'	1051-48-13	1902
i		1051-48-16	
s		1051-48-15	
a	5'-GGCCCTCAGAGGCG-3'	1051-48-14	1903
SET 2			
h2B6 p450 alt. Splice designs4			
probe	5'-AACGAGGCGCACAATACAGAGCTG-NH2-3'	1051-48-17	1904
invader	5'-GAGAAGAGCTCAAAACAGCTGGCCGC-3'	1051-48-22	1905
stacker	5'-ATGAGTGAAAAAGTCTGGTAGAAC-3'	1051-48-21	1906
arrestor	5'-CAGCTCTGTATTGTGCGC-3'	1051-48-18	1907
SET 1			
probe	5'-CCGTCACGCCTCAATACAGAGCTG-NH2-3'	1051-48-19	1908
invader		1051-48-22	
stacker		1051-48-21	
arrestor	5'-CAGCTCTGTATTGAGGCG-3'□	1051-48-20	1909
SET 2			
probe	5'-AACGAGGCGCACGGTTGAGGTTCTG-NH2-3'	1051-48-23	1910
invader	5'-CAGCAAAGAAGAGCGAGAGCGTGTGAC-3'	1051-48-28	1911
stacker	5'-GTGGCTGAATTCACGTGTG-3'	1051-48-27	1912
arrestor	5'-CAGAACCTCAACCGTGCGC-3'	1051-48-24	1913
SET 1			

FIG. 47A-53

probe	5'-CCGTCACGCCTCGGTTGAGGTTCTG-NH2-3'	1051-48-25	1914
invader		1051-48-28	
stacker		1051-48-27	
arrestor		1051-48-26	
SET 2	5'-CAGAACCTCAACCGAGGCG-3'		1915
h2B6 p450 designs			
probe	5'-CCGTCACGCCTCCACCATATCCCCG-NH2-3'	971-01-06	1916
invader	5'-CCGTCACGCCTCCACCATATCCC-NH2-3'	971-01-03	1917
stacker	5'-CGGAAGAAATGGGTCGAC-3'	971-01-05	1918
stacker	5'-CGGAAGAAATGGGTCGACCATG-3'	971-01-04	1919
arrestor	5'-GGGATATGGTGGAGGCG-3'	971-01-02	1920
SET 2			
probe	5'-CCAGCGGTTCCATTGGCAAAGATCAA-3'	971-01-01	1921
invader		971-01-03	
arrestor	5'-CGGGGATATGGTGGAGGCG-3'	971-01-07	1922
SET 2			
probe	5'-CCGTCACGCCTCCAGAGCTGATGAG-NH2-3'	971-01-08	1923
invader	5'-GAGAAGAGCTCAAACAGCTGGCCGAATAA-3'	971-01-10	1924
stacker	5'-TGAAAAAGTCTGGTAGAACAAAGTTCAGC-3'	971-01-11	1925
arrestor	5'-CTCATCAGCTCTGGAGGCG-3'□	971-01-09	1926
SET 2			
h2b6p450 designs 2			
probe	5'-CCGTCACGCCTCAGATGACTGCC-NH2-3'	971-01-12	1927
invader	5'-GGAGAAGGTCGGAAAAATCTCTGAATCTCATC-3'	971-01-13	1928
stacker	5'-TCTGTGTATGGCATTGCTCGG-3'	971-01-14	1929
arrestor	5'-GGCAGTCATCTGAGGCG-3'	971-01-15	1930
SET 2			

FIG. 47A-54

h 2C19 designs 1	probe	5'-CCGTCACGCCCTCCATCCTTAATATCTAT-NH2-3'	971-26-01	1931
	invader	5'-GAGAGATTGGTTAAGGATTTGCTGAA-3'	971-26-03	1932
	stacker	5'-CTGTAGGATATTTCCAATCACTGGG-3'	971-26-04	1933
	arrestor	5'-ATAGATATTAAGGATGGAGGCG-3'□	971-26-02	1934
	SET 2			
	probe	5'-AACGAGGGCGACCCGTTCCAGGC-NH2-3'	971-26-05	1935
	invader	5'-CATATCCATGCAGCACCCACCATGA-3'	971-26-07	1936
	stacker	5'-CAAAATACAGAGTGAACACAGGGCC-3'	971-26-08	1937
	arrestor	5'-GCCTGGAACGGTGCGC-3'	971-26-06	1938
	SET 1			
h2C19 shorter site 2 designs	probe	5'-AACGAGGGCGACCCGTTCCAGG-NH2-3'	971-68-01	1939
	invader	5'-CATATCCATGCAGCACCCACCATGA-3'	971-26-07	1940
	stacker	5'-CCAAAATACAGAGTGAACACAGGGCC-3'	971-68-03	1941
	arrestor	5'-CCTGGAACGGTGCGC-3'	971-68-02	1942
	SET 1			
	probe	5'-AACGAGGGCGACCCGTTCCAGGC-NH2-3'	971-26-05	1943
	probe	5'-AACGAGGGCGACCCGTTCCAGGC-3'	1051-12-03	1944
	probe	5'-AACGAGGGCGACCCGTTCCAGGC-HEX-3'	1051-12-04	1945
	invader		971-26-07	
	stacker	5'-CAAAATACAGAGTGAACACAGGGCC-3'	971-68-04	1946
	arrestor	5'-GCCTGGAACGGTGCGC-3'	971-26-05	1947
	SET 1			
rat 1A1, rat 1A2		Rat 1A1 site 1 bs. 639-700		
	probe	5'-CCGTCACGCCCTCAGATTGACTATGCTG-NH2-3'	500-58-01	1948
	invader	5'-CAGTAACCTCCCCAAACTCATTGCTTC-3'	500-58-03	1949
	stacker	5'-AGCAGCTCTTGGTCATCGT-3'	500-58-04	1950
	arrestor	5'-CAGCATAGTCAATCTGAGGCG-3'	500-58-02	1951
	SET 2			

FIG. 47A-55

rat 1A2	Rat 1A2 site 1 bs. 674-725		
probe	5'-AACGAGGGCGCACTGACATTCTCCAC-NH2-3'	500-58-05	1952
invader	5'-GTCCACAGCATTCCCTGAGGA-3'	500-58-07	1953
stacker	5'-AAAGTCCTTGCTGCTCTTC-3'	500-58-08	1954
arrestor	5'-GTGGAGAATGTCAGTGCGC-3'	500-53-06	1955
SET 1			
rat 2B1-2B2 patent			
probe	5'-AACGAGGGCGCACTGGCTTGACACA-NH2-3'	500-49-05	1956
invader	5'-GTCAATGTCTTGGGAGCCAAA-3'	500-49-03	1957
stacker	5'-GAGAAGTTCTGGAGGATGGTGG-3'	r2B1, 2B2 500-49-07	1958
arrestor	5'-TGTGTCAAGCCAGTGCGC-3'	500-49-06	1959
SET 1			
probe	5'-AACGAGGGCGCACTGGCTTGACACAG-NH2-3'	500-49-01	1960
invader		500-49-03	
stacker	5'-AGAAAGTTCTGGAGGATGGTGG-3'	r2B1, 2B2 500-49-04	1961
arrestor	5'-CTGTGTCAAGCCAGTGCGC-3'	500-49-02	1962
SET 1			
rat 2B1-2B2 site 4	PROBE SET 2 (r2B1 bs 1299-1353, r2B2 bs. 474-528)		
probe	5'-AACGAGGGCGCACGAGGAACAATTCAATT-NH2-3'	500-49-12	1963
invader	5'-GTTCTGGAGGATGGTGGTGAAGAAC-3'	500-49-10	1964
stacker	5'-CGGGCAATGCCTTCG-3'	500-49-14	1965
arrestor	5'-AAATGAATTGTTCTCTCGTGCGC-3'	500-49-13	1966
SET 2			
probe	5'-AACGAGGGCGCACGAGGAACAATTCAATTC-NH2-3'	500-49-08	1967
invader		500-49-10	
stacker	5'-GGGCAATGCCTTCG-3'	500-49-11	1968
arrestor	5'-GAAATGAATTGTTCTCTCGTGCGC-3'	500-49-09	1969
SET 1			

FIG. 47A-56

rat 2B1-2B2 .5 patent			
probe	5'-AACGAGGGCGCACAGCTGAGAAGCAG-NH2-3'	500-49-15	1970
invader	5'-GCCTCAGCCGGATCACCCG-3'	r2B1, 500-49-17	1971
invader	5'-GCCTCAGCCCGATCACCCG-3'	r2B2, 500-49-18	1972
stacker	5'-ATCTGGTACGTTGGAGGTATT-3'	r2B1 500-49-20	1973
stacker	5'-ATCTGGTATGTTGGAGGTATT-3'	r2B2 500-49-21	1974
arrestor	5'-CTGCTTCTCAGCTCTGCGC-3'	500-49-16	1975
NOTE: all 3 invader/probe sets are designed to detect both 2B1 and 2B2			
SET 1			
rat 2E1 p450 (af061442) 500-73	Rat 2E1 PROBE SET (570C)		
p	5'-CCGTCACGCCCTCGTCGAAACGTTTGT-NH2	500-40-04	1976
i	5'-CCTCAGACACTTCTTGTCATTGTAC-3'	500-40-02	1977
s	5'-GAAGAGGATATCCGCAATGACATTGC-3'	500-40-05	1978
a	5'-AACAAACGTTTCGACGAGGCG-3'	500-40-06	1979
SET 2			
p	5'-CCGTCACGCCCTCGTCGAAACGTTTGTGAAG-NH2-3'	500-40-01	1980
i		500-40-02	
s		500-40-05	
a	5'-CTTCAACAACGTTTCGACGAGGCG-3'	500-40-03	1981
SET 2			
rat 2E1 p450 (af061442) 500-73	Rat 2E1 PROBE SET (822G) (designed over splice junction #5)		
p	5'-CCGTCACGCCCTCCTCCATCTCTATG-NH2-3'	500-40-10	1982
i	5'-GTTCTTGGCTGTGTTTTTCCTTA-3'	500-40-08	1983
s	5'-AGGAGACAGTCAGTCACATC-3'	500-40-11	1984
a	5'-CATAGAGATGGAGGAGGCG-3'	500-40-12	1985
SET 2			
p	5'-CCGTCACGCCCTCCTCCATCTCTATGAG-NH2-3'	500-40-07	1986
i		500-40-08	
s		500-40-11	
a	5'-CTCATAGAGATGGAGGAGGCG-3'	500-40-09	1987

FIG. 47A-57

SET 2

Rat 2E1 PROBE SET (969G)

probe
invader
stacker
arrestor
SET 2

Designed over splice junction #6

5'-CCGTCACGCCCTCCTCTTCAATTTCTG-HEX-3'
5'-CCCTGTCAATTTCTTCATGAAGTTTA-3'
5'-GGTATTTTCATGAGGATCAGGAGC-3'
5'-CCAGAAATTGAAGAGAGGCG-3'

1073-19-06
500-40-14
500-40-17
500-40-15
1988
1989
1990
1991

probe
probe
probe
invader
stacker
arrestor
SET 2

5'-CCGTCACGCCCTCCTCTTCAATTTCTG-3'
5'-CCGTCACGCCCTCCTCTTCAATTTCTG-NH2-3'
5'-CCGTCACGCCCTCCTCTTCAATTTCTGG-NH2

1073-19-05
500-40-16
500-40-13
500-40-14
500-40-17
500-40-18
1992
1993
1994
1995

5'-CAGAAATTGAAGAGAGGCG-3'

Rat 2E1 PROBE SET (969G)

probe
invader
stacker
arrestor
SET 2

Designed over splice junction #6

5'-CCGTCACGCCCTCCTCTTCAATTTCT-NH2-3'
5'-CCCTGTCAATTTCTTCATGAAGTTTA-3'
5'-GGGTATTTTCATGAGGATCAGGAG-3'
5'-AGAAATTGAAGAGAGGCG-3'

500-73-01
500-40-14
500-73-03
500-73-02
1996
1997
1998
1999

rat 3A's design 2

probe
invader
invader
invader
stacker
stacker
arrestor
SET 2

5'-CCGTCACGCCCTCGTTCCTGGGT-NH2-3'
5'-GAGCAAAACCTCATGCCAATGCAC-3'
5'-GAGCAAAACCTCATGTCAATGCAC-3'
5'-GAGCAAAACCTCATGCCAATACAC-3'
5'-CCATTTCCTCAAGGGCAG-3'
5'-CCATTTCCTCAAGGGCAG-3'
5'-ACCCAGGAACGAGGCG-3'

500-43-15
r3A1, 3A18 500-43-23
r3A2 500-43-24
r3A2 500-43-24
short r3A1, 3A2, 3A18 500-43-19
short r3A9 500-43-20
500-43-16
2000
2001
2002
2003
2004
2005
2006

FIG. 47A-58

probe	5'-CCGTCACGCCTCGTTCCTGGGTC-NH2-3'	500-43-13	2007
invader		r3A1, 3A18	500-43-23
invader		r3A2	500-43-24
arrestor		500-43-14	
SET 2			
rat 3A's desing 3			
probe	5'-CCGTCACGCCTCTGAGAGCAAAACCT-NH2-3'	500-43-29	2009
invader	5'-AGAGCGAGTTTCATATTCAA-3'	r3A1, 3A2	500-43-35
invader	5'-AGAGCAACTTTCATGTTCAA-3'	r3A9	500-43-36
invader	5'-ACAGCAAGTTTCATGCTGAA-3'	r3A18	500-43-37
stacker	5'-CATGCCAATGCAGTTCCTG-3'	r3A1, 3A18	500-43-31
stacker	5'-CATGTCAATGCAGTTCCTG-3'	r3A2	500-43-32
stacker	5'-CATGCCAATACAGTTCCTG-3'	r3A9	500-43-33
arrestor	5'-AGGTTTGCTCTCCGAGGGCG-3'	500-43-30	2016
SET 2			
probe	5'-CCGTCACGCCTCTGAGAGCAAAACCTCA-NH2-3'	500-43-27	2017
invader		r3A1, 3A2	500-43-35
invader		r3A9	500-43-36
invader		r3A18	500-43-37
arrestor		500-43-28	
SET 2			
rat 3A's designs			
probe	5'-CCGTCACGCCTCGGAACATCTCCT-NH2-3'	500-43-03	2019
invader	5'-TGCTCCATACTGTTCAATGATGGC-3'	r3A1, 3A2	500-43-09
invader	5'-TATCTGTATACTGGTTAATGATGGC-3'	r3A9	500-43-10
invader	5'-TATCTCCATACTGTCTCATGAGGGC-3'	r3A18	500-43-11
s	5'-TGAGTCTTCCACTGGTG-3'	r3A1, 3A2	500-43-05
s	5'-TGAGCTTCCCACTGGTG-3'	r3A9	500-43-06
a	5'-TGAGTTGCCCACTGGTG-3'	r3A18	500-43-07
SET 2			

FIG. 47A-59

probe	5'-CCGTCACGCCCTCGGAACATCTCCTTGA-NH2-3'	500-43-01	2026
invader		r3A1, 3A2	500-43-09
invader		r3A9	500-43-10
invader		r3A18	500-43-11
arrestor		500-43-02	
SET 2	5'-TCAAGGAGATGTTCCGAGGCG-3'		2027
rat 3A's design 2b			
probe	5'-CCGTCACGCCCTCGTTCCTGGG-NH2-3'	991-39-01	2028
invader	5'-GAGCAAACCTCATGCCAATGCAC-3'	r3A1, 3A18	500-43-23
invader	5'-GAGCAAACCTCATGTCAATGCAC-3'	r3A2	500-43-24
invader	5'-GAGCAAACCTCATGCCAATACAC-3'	r3A9	500-43-25
stacker	5'-TCCATTTCCAAAGGGCAG-3'	r3A1, 3A2, 3A18	991-39-03
stacker	5'-TCCATTTCCAAAGGGCAG-3'	r3A9	991-39-04
arrestor	5'-CCCAGGAACGAGGCG-3'	991-39-02	2034
SET 2			
rat or human 1A1 shorter site 2			
probe	5'-CCGTCACGCCCTCCTGTCTGTGAT-HEX-3'	1073-19-02	2035
probe	5'-CCGTCACGCCCTCCTGTCTGTGAT-3'	1073-19-01	2036
probe	□ 5'-CCGTCACGCCCTCCTGTCTGTGAT-NH2-3'	991-12-04	2037
invader	5'-TCCTGACAATGCTCAATGAGGA-3'	r 1A1	500-53-11
invader	5'-TCCTGACAGTGCTCAATCAGGA-3'	h 1A1	500-53-12
stacker	5'-GTCCGGGATGTGGCCC-3'	rat/human 1A1	991-12-06
arrestor	5'-ACATCACAGACAGGAGGCG-3'	500-53-10	2041
SET 2			
probe	5'-CCGTCACGCCCTCCTGTCTGTGATG-NH2-3'	991-12-01	2042
invader		r 1A1	500-53-11
invader		h 1A1	500-53-12
stacker	5'-TCCCCGGATGTGGCCCT-3'	rat/human 1A1	991-12-03
arrestor	5'-CATCACAGACAGGAGGCG-3'□	991-12-02	2044
SET 2			

FIG. 47A-60

probe	5'-CCGTCACGCCCTCCTGTCTGTGTGATGT-NH2-3'	500-53-09	2045
invader		r 1A1 500-53-11	
invader		h 1A1 500-53-12	
stacker	5'-GTCCCGGATGTGGCCC-3'	rat/human 1A1 991-12-06	2046
arrestor	5'-ATCACAGACAGGAGGCG-3'□	991-12-05	2047
SET 2			
rat or human 1A1 site 1			
probe	5'-CCGTCACGCCCTCTGCCCCCTTC-NH2-3'	500-53-04	2048
invader	5'-CTGTCTGTGATGTCCCGGATGA-3'	500-53-03	2049
stacker	5'-TCAAATGTCCTGTAGTGCTC- 3'	rat 1A1 500-53-06	2050
stacker	5'-TCAAAGGTTTGTAGTGCTC- 3'	human 1A1 500-53-07	2051
arrestor	5'-GAAGGGCCAGAGGCG-3'	500-53-05	2052
SET 2			
probe	5'-CCGTCACGCCCTCTGCCCCCTTC-NH2-3'	500-53-01	2053
invader		500-53-03	
arrestor	5'-GAGAAGGGCCAGAGGCG-3'	500-53-02	2054
SET 2			
Rat/Human 1A1 site 2			
probe	5'-CCGTCACGCCCTCCTGTCTGTGTGATGT-NH2-3'	500-53-09	2055
invader	5'-TCCTGACAATGCTCAATGAGGA-3'	r 1A1 500-53-11	2056
invader	5'-TCCTGACAGTGCTCAATCAGGA-3'	h 1A1 500-53-12	2057
stacker	5'-CCCGGATGTGGCCCT-3'	rat/human 1A1 500-53-14	2058
arrestor	5'-ACATCACAGACAGGAGGCG-3'	500-53-10	2059
SET 2			
rat or human 1A2 sites			
probe	□ 5'-AACGAGGCGCACGGACTGTTTCTGC-HEX-3'	1073-19-04	2060
probe	5'-AACGAGGCGCACGGACTGTTTCTGC-3'	1073-19-03	2061
probe	5'-AACGAGGCGCACGGACTGTTTCTGC-NH2-3'	500-53-15	2062
invader	5'-CTTGTTGAAGCTTGATAGTGTTCCTC-3'	rat 1A2 500-53-17	2063
invader	5'-CTTGTCAAAGTCCTGATAGTGCTCCTC-3'	human 1A2 500-53-18	2064
arrestor	5'-GCAGAAACAGTCCGTGCGGC-3'□	500-53-16	2065
SET 1			

FIG. 47A-61

shorter h2C19 design site 3
probe
invader
stacker
arrestor
SET 1

□ 5'-AACGAGGCGCACGATGTCCATCG-NH2-3'
5'-GCAATCAATAAAGTCCCGAGGGTTGTTTC-3'
5'-ATTCTTGGTGTTCTTTTACTTTTCTC-3'
5'-CGATGGACATCGTGCGC-3'

971-48-01
971-26-11
971-48-03
971-48-02

2066
2067
2068
2069

FIG. 47A-62

Human IL-10			Mouse IL-4		
Oligo Type	Sequence	Oligo Number	Secondary Cassette	Comments	SEQ ID NO
probe	aacgaggcgaccacaactcactcatgct-NH2	511-31-01	FV-1 & FV-2	3' amine	2070
arrestor	agccatgagtgagttgttg	511-31-02		All 2'-Ome + 3' amine arrestor for 511-31-01	2071
probe	aacgaggcgaccacaactcactcatggc-NH2	511-30-01	FV-1 & FV-2	3' amine	2072
arrestor	gccatgagtgagttgttg	511-30-02		All 2'-Ome + 3' amine arrestor for 511-30-01	2073
arrestor	gccatgagtgagttgttg	380-89-02		All 2-Ome Same as 380-82-02	2074
arrestor	gccatgagtgagttgttg	380-89-04		All 2-Ome Same as 380-82-04	2075
arrestor	gccatgagtgagttgttg	380-89-06		All 2-Ome Same as 380-82-06	2076
arrestor	gccatgagtgagttgttgccc	380-89-08		All 2-Ome Same as 380-82-08	2077
probe	aacgaggcgaccacaactcactcatg-NH2	511-67-01	FV-1 & FV-2	3' amine	2078
stacker	ctttgacatgcctctctcttgagc	781-79-01		stacker for 511-67-01 All 2'Ome	2079
arrestor	ccatgagtgagttgttg	781-79-02	FV-1 & FV-2	all 2'Ome arrestor for 511-67-01	2080
probe	aacgaggcgaccacaactcactcatg-NH2	781-80-01		3' amine	2081
stacker	gccttgacatgcctctctcttgag	781-80-02		stacker for 781-80-01 All 2'Ome	2082
arrestor	catgagtgagttgttg	781-80-03	FV-1 & FV-2	all 2'Ome arrestor for 781-80-01	2083
probe	aacgaggcgaccacaactcactcat-NH2	781-81-01		3' amine	2084
stacker	ggctttgacatgcctctctcttga	781-81-02		stacker for 781-81-01 All 2'Ome	2085
stacker	ggctttgagatgcctctctcttga	938-74-01		stacker for 781-81-01 All 2'Ome to replace 781-81-02	2086
arrestor	atgagtgagttgttg	781-81-03		all 2'Ome arrestor for 781-81-01	2087
probe	cgcgcagcctccaaactcactcat-NH2	938-46-02	MO4-1/MO4-2/MO4-3	same as 938-46-01 w/ 3' amine	2088
arrestor	atgagtgagttgttgagc	938-46-03		all 2'Ome arrestor for 938-46-01&02	2089
invader	taggtctctatgagttgagatgta	380-59-02		longer invader 380-59-02	2090
invader	gtcatgaggctctatgagttgagatgta	511-32-01			2091
probe	aacgaggcgacactctctctgagcctcg	511-14-01	FV-1 & FV-2	All 2'-Ome + 3' amine arrestor for 511-14-01	2092
arrestor	cgaggtcacaggagagtg	511-14-02		458-34-01 with 3' amine	2093
probe	aacgaggcgacactctctctgagcct-NH2	511-12-01	FV-1 & FV-2	All 2'-Ome + 3' amine arrestor for 458-34-01	2094
arrestor	aggtcacaggagagtg	511-02-01	MO2	3' amine	2095
probe	cagtcacgtctctctctctgagcct-NH2	511-16-01		All 2'-Ome + 3' amine arrestor for 511-16-01	2096
arrestor	aggtcacaggagagagc	511-16-02		All 2'-Ome + 3' amine arrestor for 511-16-01	2097
arrestor	aggtcacaggagagagac	511-50-01	MISC-1		2098
probe	aaccagtcgacgtctctctgagcct	458-35-01		All 2'-Ome + 3' amine arrestor for 458-35-01	2099
arrestor	aggtcacaggagagcagac	511-03-01			2100
probe	ccagtcgacgtctctctctgagcct	458-35-02	MISC-1		2101
arrestor	aggtcacaggagagtg	511-04-01	MISC-2		2102
probe	aaccacccgcactctctctgagcct	511-13-01	FV-1 & FV-2	All 2'-Ome + 3' amine arrestor for 458-36-01	2103
probe	aacgaggcgacactctctctgagc	511-13-01			2104
arrestor	ggtcacaggagagtg	511-13-02	FV-1 & FV-2	3' amine	2105
probe	aacgaggcgacactctctctgag-NH2	781-71-01		All 2'-Ome for 781-71-01	2106
stacker	ccctgggttaaaatgccgatgtcttc	781-71-02		All 2'-Ome arrestor for 781-71-01	2107
arrestor	tcacaggagagtgcc	781-71-03			2108
Invader	atccatccgtagcagtgccctcta	380-32-01		Same as 380-32-01 but underlined base is mismatch to sequence	2109
Invader	atccatccgtagcagtgccctcta	380-32-02			2110
probe	aacgaggcgaccctctctctctgagc-NH2	511-44-01	FV-1 & FV-2	3' amine	2111
arrestor	gtcacaggagaggggtg	511-44-02		All 2'-Ome + 3' amine arrestor for 511-44-01	2112
probe	aacgaggcgaccctctctctctg-NH2	511-68-01	FV-1 & FV-2	3' amine	2113
arrestor	acaggagaggggtg	511-68-02		All 2'-Ome + 3' amine arrestor for 511-68-01	2114
invader	ggcatcatcatctctcgtagcaggtga	511-45-01			2115

FIG. 47A-63

probe arrestor probe arrestor probe stacker arrestor probe stacker arrestor invader	ccg|cacg|cctc|ctc|tg|gacctg|t-NH2 acgagg|cacagagg|aggc ccg|cacg|cctc|ctc|tg|gacctc-NH2 gagg|cacagagg|aggc tcgg|tcaaaatg|ccg|atg|atc|tctca gggtcacaggaggaggcg ccg|cacg|cctc|ctc|tg|gacctc-NH2 ctcggt|caaaatg|ccg|atg|atc|tctca gtcacaggaggaggcg acatccat|ctc|cg|tgc|atg|cg|tcccta	511-46-01 511-46-02 511-69-01 511-69-02 781-68-01 781-68-02 781-68-03 781-69-01 781-69-02 781-69-03 511-47-01	MO4-1/MO4-2/MO4-3 MO4-1/MO4-2/MO4-3 MO4-1/MO4-2/MO4-3 MO4-1/MO4-2/MO4-3	3' amine All 2'-Ome + 3' amine arrestor for 511-46-01 3' amine All 2'-Ome + 3' amine arrestor for 511-69-01 3' amine All 2'Ome stacker for 781-68-01 All 2'-Ome arrestor for 781-68-01 3' amine All 2'Ome stacker for 781-69-01 All 2'-Ome arrestor for 781-69-01	2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126
probe arrestor invader	cag|cacg|tctc|tct|ctc|tct-NH2 aggagaggaggaggcg gcacatcatc|ctc|tg|tgc|tggcga	511-17-01 511-17-02 511-18-01	MO2	3' amine All 2'-Ome + 3' amine arrestor for 511-17-01	2127 2128 2129
probe arrestor probe invader arrestor	ccg|ccg|gatc|actc|ctg|gacc-NH2 gggtcacaggag|gac ccg|cacg|cctc|ctc|tg|gacc-NH2 ccg|tgc|atg|g|tgc|tcttca gggtcacaggaggaggcg	781-83-01 781-83-02 781-82-01 781-82-02 781-82-03	TT-1/TT-2 MO4-1/MO4-2/MO4-3	3' amine All 2' Ome arrestor for 781-83-01 3' amine All 2' Ome arrestor for 781-82-01	2130 2131 2132 2133 2134
probe invader arrestor	ccg|cacg|cctc|ctc|tg|gacc-NH2 cggtgatggcg|tcttcta gggtcacaggaggaggcg	781-84-01 781-84-02 781-84-03	MO4-1/MO4-2/MO4-3	3' amine All 2' Ome arrestor for 781-84-01	2135 2136 2137
Mouse IL-2 Oligo Type probe arrestor invader	Sequence cagtcacgtctctctagttacacagtcactct-NH2 agagtaactgttgtaaaactaaagagacg gcactcaaatgtgtgtgcagagccca	511-19-01 511-19-02 511-20-01	Secondary Cassette MO2	Comments 3' amine All 2'-Ome + 3' amine arrestor for 511-19-01	2138 2139 2140
Mouse IFN-γ Oligo Type probe arrestor probe arrestor probe arrestor invader	Sequence cagtcacgtctctctttttgcccagttcc-NH2 ggaacgggcaaaaggaggagacg cagtcacgtctctctttttgcccagttc-NH2 gaactggcaaaaggaggagacg cagtcacgtctctctttttgcccagitt-NH2 aacggcaaaaggaggagacg gctctgcaggattttcattgaccacca	511-24-01 511-24-02 511-23-01 511-23-02 511-21-01 511-21-02 511-22-01	Secondary Cassette MO2 MO2 MO2	Comments 3' amine All 2'-Ome + 3' amine arrestor for 511-24-01 3' amine All 2'-Ome + 3' amine arrestor for 511-23-01 3' amine All 2'-Ome + 3' amine arrestor for 511-20-01	2141 2142 2143 2144 2145 2146 2147
Human TNF-α Oligo Type probe arrestor probe arrestor invader	Sequence ccgcggagatcactcagtcctc|g-NH2 caggcagtcagag|gactcgg ccgcggagatcactcagtcctcct-NH2 aggcagtcagag|gactcgg ctt gtc act cgg ggt tgg aga tga a	511-77-01 511-77-02 511-78-01 511-78-02	Secondary Cassette TT-1/TT-2 TT-1/TT-2	Comments 3' amine (based on 685-27-01-1 base shorter) All 2'-Ome + 3' amine arrestor for 511-77-01 3' amine (based on 685-27-01-2 bases shorter) All 2'-Ome + 3' amine arrestor for 511-78-01	2148 2149 2150 2151 2152

FIG. 47A-64

Human IL-1 β		Sequence	Oligo Number	Secondary Cassette	Comments	
Oligo Type						
probe	gccgltcacgcctctctcatctgttagggcc-NH2	511-79-01	MO4-1/MO4-2/MO4-3	3' amine (based on 685-21-01)	2153	
arrestor	ggccctaaacagatgagaggcgt	511-80-01		All 2'-Ome + 3' amine arrestor for 511-79-01	2154	
arrestor	ggccctaaacagatgagaggcgga	511-80-02		All 2'-Ome + 3' amine arrestor for 511-79-01	2155	
invader	caggtcctggaaggagcacta	685-23-01			2156	
Human IL-6		Sequence	Oligo Number	Secondary Cassette	Comments	
Oligo Type						
probe	gcccgtcacgcctctctctcatgaaacct-NH2	511-81-01	MO4-1/MO4-2/MO4-3	3' amine (based on 685-16-01)	2157	
arrestor	aggattcaatgagagagagggcgga	511-82-01		All 2'-Ome + 3' amine arrestor for 511-81-01	2158	
arrestor	aggattcaatgagagagagggcgt	511-82-02		All 2'-Ome + 3' amine arrestor for 511-81-01	2159	
probe	ccgltcacgcctctctctcatgaaacct-NH2	781-27-01	MO4-1/MO4-2/MO4-3	3' amine (511-81-01 with new arm)	2160	
arrestor	aggattcaatgagagagagggcg	781-27-02		All 2'-Ome + 3' amine arrestor for 781-27-01	2161	
probe	gcccgtcacgcctctctctcatgaaacct-NH2	511-83-01	MO4-1/MO4-2/MO4-3	3' amine (based on 685-16-01)	2162	
arrestor	ggattcaatgagagagagggcgga	511-84-01		All 2'-Ome + 3' amine arrestor for 511-81-01	2163	
arrestor	ggattcaatgagagagagggcgt	511-84-02		All 2'-Ome + 3' amine arrestor for 511-81-01	2164	
probe	ccgltcacgcctctctctcatgaaacct-NH2	781-28-01	MO4-1/MO4-2/MO4-3	3' amine (511-83-01 with new arm)	2165	
arrestor	ggattcaatgagagagagggcg	781-28-02		All 2'-Ome + 3' amine arrestor for 781-28-01	2166	
probe	cggltcacgcctctctctcatgaaacct-NH2	781-29-01	MO4-1/MO4-2/MO4-3	3' amine (1 base shorter than 781-28-01)	2167	
arrestor	gattcaatgagagagagggcg	781-29-02		All 2'-Ome + 3' amine arrestor for 781-29-01	2168	
probe	cgcgcgagatcactctctctcatgaaacct-NH2	781-30-01	TT-1/TT-2	3' amine (781-29-01 with new arm)	2169	
arrestor	gattcaatgagagagagatctc	781-30-02		All 2'-Ome + 3' amine arrestor for 781-30-01	2170	
invader	cca aaa gtc cag tga tta tta cca ggc aag a	685-18-01			2171	
Secondary Cassettes						
SRT	cggagaagcagttggcgccctctaaNH2	277-68-05	FV-1		2172	
FRET probe	Fcaac(Cy3)gctctctcg	187-46-01			2173	
SRT	ccaggaagcaagtgggtgcgcctcgttt	996-29-01	FV-2		2174	
FRET probe	Fcac(Z21)tgctctgtgg	767-29-02			2175	
SRT	cggagaagcagttggagggcgtagcgttNH2	641-60-03	MO4-1		2176	
FRET probe	Fcaac(Cy3)tgctctctcg	187-46-01			2177	
SRT	cggagaagcagttggagggcgtagcggcNH2	562-93-01	MO4-2		2178	
FRET probe	Fcaac(Cy3)tgctctctcg	187-46-01			2179	
SRT	ccaggaagcaagtgagggcgtagcggau	996-29-02	MO4-3		2180	
FRET probe	Fcac(Z21)tgctctgtgg	767-29-02			2181	
SRT	cggagaagcagttggtagtctcggcgNH2	562-92-01	TT-1		2182	
FRET probe	Fcaac(Cy3)gctctctcg	187-46-01			2183	
SRT	cggagaagcagttggtagtctcggcgNH2	685-56-01	TT-2		2184	
FRET probe	Fcaac(Cy3)gctctctcg	187-46-01			2185	
SRT	gctactgagatgaaggagagcgtagcttanNH2	491-68-02	MO2		2186	
FRET probe	Fcttc(Cy3)lctcagtagc	491-68-01			2187	

FIG. 47A-65

SRT	cgg agg aag cgg ttg cgt acg act ggt taa-NH2	458-35-03	MISC-1	2188
FRET probe	Fcaac(Cy3)gtctctccg	187-46-01		2189
SRT	cgg agg aag cgg ttg glg cgg gtg gtt ggc-PO3	441-31-02	MISC-2	2190
FRET probe	Fcaac(Cy3)gtctctccg	187-46-01		2191

FIG. 47A-66

Oligo sequence descriptions: 5' to 3' direction, 2'-Ome ntis are bolded and underlined, internal modifications defined in ()

FRET Oligo/SRT Combinations

	FRET Oligo	SRT
Set 1	187-46-01	641-60-02
Set 2	187-46-01	690-82-03
Set 3	307-70-02	339-50-03
Set 4	303-18-05	343-63-07
Set 5	303-18-05	343-25-01
Set 6	187-46-01	649-10-01
Set 7	744-80-03	277-068-05N
Set 8	187-46-01	833-18-07
Set 9	767-28-03	777-71-10
Set 10	767-29-02	996-29-01
Set 11	1067-20-01	996-29-01
Set 12	307-70-02	307-70-04
Set 13	491-01-01	491-02-04
Set 14	187-46-01	562-84-01

Oligo #	Oligo Sequence
187-46-01	Fam-CAAC(CY3)GCTTCCTCCG
307-70-02	Fam-ATTC(CY3)TCTCAGAC-NH2
303-18-05	Fam-TAAC(CY3)GCTTCCTCCG
744-80-03	Fam-CAA(Dabcyl)TGCTTCCTCCG
767-28-03	Red Dye-CTC(Z-21)TCTCAGTGCG
767-29-02	Fam-CAC(Z-21)TGCTTCGTGG
1067-20-01	Fam-CAC(Z-28)TGCTTCGTGG
491-01-01	Fam-CTTC(CY3)TCTCAGAC

SEQ ID NO
2192
2193
2194
2195
2196
2197
2198
2199

Oligo #	Oligo Sequence
641-60-02	CGGAGGAAGCAGTTGGAGCGTGACGGT-NH2
690-82-03	CGGAGGAAGCAGTTGTGGCGGTGACGGTT
339-50-03	CAGTCTGAGATGAATGAGACGAGAGT-NH2
343-63-07	CGGAGGAAGCGGTTAGTCTGCACGTCAI-NH2
343-25-01	CGGAGGAAGCGGTTAGTGTGCCACGTCAI-NH2
649-10-01	CGGAAGAACAGTTGGTGCCTCGTAA-NH2
277-068-05N	CGGAGGAAGCAGTTGGTGCCTCGTAA-NH2
833-18-07	CGGAGGAAGCAGTTGCCTGCGGCT-NH2
777-71-10	GCGCAGTGAGATGAGAGCGGTGACGGU-NH2
996-29-01	CCAGGAAGCAAGTGGTGCCTCGUUU
307-70-04	CAGTCTGAGATGAATGATACCCAGG-NH2
491-02-04	AGTCTGAGATGAAGGAGACGTGCTGG-NH2
562-84-01	CGGAGGAAGCGGTTGGTGATCTCGGCG-NH2

SEQ ID NO
2200
2201
2202
2203
2204
2205
2206
2207
2208
2209
2210
2211
2212

FIG. 47A-67

Oligo Type	Oligo #	Oligo Sequence	Notes	Position	SEQ ID NO
Human IL-2					
Probe	196-56-01	TCTGTGGCGTATCCTCTTGGGCATGTAA		Splice Junction 2	2213
Probe	196-56-02	GTGGCGTATCCTCTTGGGCATGTAA			2214
Probe	196-56-03	GCGTATCCTCTTGGGCATGTAA			2215
Invader	128-93-02	GAAGATGTTTCAGTTCTGTGG(ddC)	ddC = dideoxy C		2216
Capture Oligo	145-030-05	AAAAGATACGCCACAGAACACG(BIOTIN-dA)TT		Splice Junction 1	2217
Probe	315-28-01	TGGCGTATCTTAATTCATTCAAAT			2218
Invader	315-28-02	TGGGAGTTTGGGATCTTGTAAITTA			2219
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 1	2220
Probe	315-29-01	TGGCGTATCTAATTATTAAATCCATTC			2221
Invader	315-29-02	ATCCTGGTGAGTTGGGATCTTGA			2222
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 1	2223
Probe	315-29-03	TGGCGTATCTCCATTCAAATCATC			2224
Invader	315-29-04	GTTTGGGATCTTGTAAITTAITTA			2225
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 2	2226
Probe	315-30-01	GTGGCGTATCCTCTTGGGCAT			2227
Invader	315-30-02	GAAGATGTTTTCAGTTCTGTGGC			2228
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C			2229
Human b-actin					
Probe	315-26-01	TGGCGTATCTCTGGGTCACTTC		Splice Junction 3	2230
Invader	315-26-02	GGGTGTTGAAGGTCTCAAACATGAA			2231
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 5	2232
Probe	315-27-01	TGGCGTATCTCTTGATCTTCATTGT			2233
Invader	315-27-02	ACTTGGCGTCCAGGAGGAGCAATGAA			2234
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 3	2235
Probe	315-91-01	TGGCGTATCTGATCTGGGTCACT			2236
Invader	315-91-02	TGGCTGGGGTGTGAAGGTCTCAAACAA			2237
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 4	2238
Probe	315-92-01	ACCGTATCTGCCCAGGAAGGA			2239
Invader	315-92-02	AGTTTCGTGGATGCCACAGGAGACCAA			2240
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 3	2241
Probe	340-32-01	TGGCGTATCTCTCAAACATGATCT			2242
Invader	340-32-02	ACGTACATGGCTGGGGTGTGAAGGA			2243
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 3	2244
Probe	340-33-01	TGGCGTATCTGATCTGGGTCACT			2245
Invader	340-33-02	TGGCTGGGGTGTGAAGGTCTCAAACAA			2246
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C		Splice Junction 3	2247
Probe	740-01-01	CCGTACGCCCTCGCCTTGGGGTTC		Splice Junction 3	2248
Invader	740-01-02	TCTGGGTCACTCTTCGCGTTGA			2249
Arrestor	740-01-03	<u>GAACCCCAAGCGGAGGCGI</u>			2250
Secondary Cassette		Set 1			2251
Probe	740-01-08	CCGTACCGGCATGGGTCACTTCT		Splice Junction 3	2252
Stacker	740-01-04	CGCGGTTGGCCTTGGGGTT			2253
Invader	740-01-06	CTGGGGTGTGAAGGTCTCAAACATGATCC			2254
Arrestor	740-01-09	<u>AGAAGATGACCCCATGGCGG</u>			2255
Secondary Cassette		Set 2			
Mouse GAPDH					

FIG. 47A-68

Probe	425-59-01	FLCTCTCTCGTCTCTCTCTGGAAGA	FI = Fluorescien	Splice Junction 4	2256
Invader	425-59-02	ATTGTAGTTAGTGGGGTCTCGCA			2257
Probe	425-60-01	FLCTCTCGTCTCTCTCTGACAATC	FI = Fluorescien	Splice Junction 6	2258
Invader	425-60-02	GCAGTTGGTGGTGCAGATGCATA			2259
Probe	425-61-01	FLCTCTCTCGTCTCTACCAAGAAATG	FI = Fluorescien	Splice Junction 8	2260
Invader	425-61-02	GCGTAGCCGATTTCATTGTCAA			2261
Probe	425-80-01	FLCTCTCTCGTCTCTCTCTCTGGAAG		Splice Junction 4	2262
Invader	425-80-02	CATTGTAGTTAGTGGGGTCTCGA			2263
Probe	425-87-01	CTCTCTCGTCTCTCTCTGGAAGA		Splice Junction 4	2264
Invader	425-87-02	ATTGTAGTTAGTGGGGTCTCGCA	Same as 425-59-01 without Fluorescien		2265
Arrestor	425-87-04	<u>ICTTCCAGGAGAGACG</u>			2266
Secondary Cassette		Set 3			
Probe	425-87-02	CTCTCTCGTCTCTCTCTCTGGAAG	Same as 425-80-01 without Fluorescien	Splice Junction 4	2267
Invader	425-80-02	CATTGTAGTTAGTGGGGTCTCGA			2268
Arrestor	425-87-05	<u>CTTCCAGGAGGAGACG</u>			2269
Secondary Cassette		Set 3			
Probe	425-87-03	CTCTCTCGTCTCTACCAAGAAATG		Splice Junction 8	2270
Invader	425-61-02	GCGTAGCCGATTTCATTGTCAA			2271
Arrestor	425-87-06	<u>CAITTCCTGGTAGAGACG</u>	Same as 425-61-01 without Fluorescien		2272
Secondary Cassette		Set 3			
Probe	453-23-01	ATGACGTGACAGACCTCTCTGGAAGAT		Splice Junction 4	2273
Probe	453-23-03	ATGACGTGACAGACCTCTCTGGAAGATG			2274
Invader	425-80-02	CATTGTAGTTAGTGGGGTCTCGA			2275
Arrestor	453-23-04	<u>CAITTCAGGAGGGTCTGT-NH2</u>			2276
Secondary Cassette		Set 4			
Probe	453-23-02	ATGACGTGGCAGACCTCTCTGGAAGAT		Splice Junction 4	2277
Invader	425-80-02	CATTGTAGTTAGTGGGGTCTCGA			2278
Arrestor	453-23-05	<u>ATCTTCAGGAGGGTCTGC-NH2</u>			2279
Secondary Cassette		Set 5			
Probe	435-67-04	CAGTCAGCTCTCTCAGGTTTTG			2280
Invader	395-05-07	AGGCAGCTCTCAGGTGAGGTGTGA			2281
FRET Probe - Secondary Reaction	524-51-01	FLCTTC(Cy3)TCTCAGTAGCG			2282
Secondary Reaction Template	524-51-03	CGCTACTGAGATGAAGGAGACGTGACTGTGA-NH2			2283
Secondary Reaction Template	524-51-04	CGCTAATGAGATGAAGGAGACGTGACTGTGA-NH2			2284
Probe	435-67-04	CAGTCAGCTCTCTCAGGTTTTG			2285
Invader	395-05-07	AGGCAGCTCTCAGGTGAGGTGTGA			2286
FRET Probe - Secondary Reaction	524-51-02	FLCTTC(Cy3)TCTCAGTAGCGA			2287
Secondary Reaction Template	524-51-05	TCGCTACTGAGATGAAGGAGACGTGACTGTGA-NH2			2288
Secondary Reaction Template	524-51-06	TCGCTAATGAGATGAAGGAGACGTGACTGTGA-NH2			2289
Human Ubiquitin					
Probe	796-72-01	AACGAGCGGCACCTTTACATTTTCTATCGTATCC		119	2290
Invader	428-81-02	CCITTCCTTATCCTGGATCTTGGCA			2291
Arrestor	796-72-02	<u>GGATACGATAGAAAAATGTAAAGGTGCGC</u>			2292
Secondary Cassette		Set 6			
Probe	796-72-03	AACGAGCGGCACCTTTACATTTTCTATCGTATC			2293
Invader	428-81-02	CCITTCCTTATCCTGGATCTTGGCA			2294
Arrestor	796-72-04	<u>GATACGATAGAAAAATGTAAAGGTGCGC</u>			2295
Secondary Cassette		Set 6			
Probe	820-35-01	AACGAGCGGCACCTTTACATTTTCTATCG			2296
Probe	820-35-02	AACGAGCGGCACCTTTACATTTTCTATCGT			2297

FIG. 47A-69

Invader	428-81-02	CCTTCCTTATCCTGGATCTTTGGCA	2298
Arrestor	820-35-03	<u>ACGATAGAAAAATGTAAGGTGCGC</u>	2299
Secondary Cassette		Set 7	
Probe	820-88-01	AACGAGCGCGCACCTTTACATTTCTATCGT-NH2	2300
Probe	820-88-02	AACGAGCGCGCACCTTTACATTTCTATCGT <u>T</u>	2301
Probe	820-88-03	AACGAGCGCGCACCTTTACATTTTCTATCGT <u>G</u>	2302
Probe	820-88-04	AACGAGCGCGCACCTTTACATTTTCTATCGTT	2303
Arrestor	428-81-02	CCTTCCTTATCCTGGATCTTTGGCA	2304
Secondary Cassette	820-35-03	<u>ACGATAGAAAAATGTAAGGTGCGC</u>	2305
Probe	847-65-01	GCCGCACGCGCTTTACATTTTCTATCGT	2306
Invader	428-81-02	CCTTCCTTATCCTGGATCTTTGGCA	2307
Arrestor	847-65-02	<u>ACGATAGAAAAATGTAAGCGGCG</u>	2308
Arrestor	847-65-03	<u>ACGATAGAAAAATGTAAGCGGCGI</u>	2309
Secondary Cassette		Set 8	
Probe	936-61-01	AACGAGCGCGCACCTTTACATTTTCTATCGTCCG	2310
Invader	428-81-02	CCTTCCTTATCCTGGATCTTTGGCA	2311
Secondary Cassette	936-61-02	<u>CGGATACGATAGAAAAATGTAAGGTGCGC</u>	2312
		Set 7	
Monocyte Chemolactic Protein 1 (MCP-1)			
Probe	820-89-01	CCGTACACGCCCTCTTCGAGTTTGGG	2313
Invader	685-76-01	GGGTTGTGGAGTGAGTGTTCAGTA	2314
Arrestor	820-89-02	<u>CCCAAACTCCGAAGGAGGCG</u>	2315
Secondary Cassette		Set 9	
MAGE-3			
Probe	1001-01-01	FI-TTTTCTGGAAGCTTTGCT	2316
Invader	871-18-03	<u>CGAIGCCAAAGACCAAGCTGCAAGGAAG</u>	2317
Stacker	871-18-01	<u>GAAGATCACAGGAAAGAAATAG</u>	2318
Stacker	1138-50-01	<u>GCAGCTTCTTGGGA</u>	2319
Probe	1138-50-02	AACGAGCGCGCACGTGGGTGA	2320
Stacker	1138-50-03	<u>GCAGCTTCTTGGGACT</u>	2321
Probe	1138-50-04	AACGAGCGCGCACGTGGGTGAG	2322
Invader	1138-50-05	CTCCAGGTAGTTTTCTGCACGAAATC	2323
Arrestor	1138-50-06	<u>CTCACCCAAACGTGCGC</u>	2324
Secondary Cassette		Set 10	
Stacker	1138-51-01	<u>AGCTTCTTGGGATC</u>	2325
Probe	1138-51-02	AACGAGCGCGCACTTGGGTGAGC	2326
Stacker	1138-51-03	<u>GCTTCTTGGGATCC</u>	2327
Probe	1138-51-04	AACGAGCGCGCACTTGGGTGAGCA	2328
Invader	1138-51-05	CAGGTAGTTTTCTGCACGAAATGA	2329
Arrestor	1138-51-06	<u>TGCTCACCCAAAGTCCGC</u>	2330
Secondary Cassette		Set 11	
Stacker	1138-67-01	<u>TGCAGGATCACTGCC</u>	2331
Probe	1138-67-02	AACGAGCGCGCACCAATTCATAACA	2332
Invader	1138-67-03	GGCCCTTGGACCCCAA	2333
Arrestor	1138-67-04	<u>TGTTATGAATTGGTGGTCCG</u>	2334
Secondary Cassette		Set 11	
Stacker	1138-67-05	<u>CAIGCAGGATCACTGC</u>	2335

FIG. 47A-70

Probe	1138-67-06	AACGAGGGCGCACCAACCAATTTCATAA	2336
Invader	1138-67-07	AGGGCCCTTGGACCCA	2337
Arrestor	1138-67-08	<u>TTATGAATTGGTGTGGTGCGC</u>	2338
Secondary Cassette		Set 11	
Human Oncostatin M			
Probe	339-30-02	CCTGGCGTATCTAGGGCTCCA	2339
Invader	264-42-03	GTGTTCAAGTTTTGGAGCGGGATAA	2340
Arrestor	374-32-01	<u>CTTGGAGCCCTAGATAC-NH2</u>	2341
Arrestor	374-32-02	<u>CTTGGAGCCCTAGATACG-NH2</u>	2342
Arrestor	374-32-03	<u>CTTGGAGCCCTAGATACGC-NH2</u>	2343
Secondary Cassette		Set 12	
Probe	524-39-01	CAGTCACGTCTCTCAGGTTTG-NH2	2344
Invader	395-05-07	AGGCAGCTCTCAGGTCAAGGTGTGA	2345
Stacker	435-40-02	GAGCGGATATAGGCTCCA	2346
Arrestor	369-47-07	<u>CAAAACCTGAAGAGACG-NH2</u>	2347
Secondary Cassette		Set 13	
Probe	1088-74-01	AACGAGGGCGCACCCCTCTGTGTG	2348
Arrestor	1088-74-02	<u>CACACAGAGGGTGCGC</u>	2349
Probe	1088-74-03	AACGAGGGCGCACCCCTCTGTGTG-NH2	2350
Probe	1088-74-04	AACGAGGGCGCACCCCTCTGTGTG-HEX	2351
Invader	603-75-03	GCAAGGACCAAGACTGAGCAGCGTA	2352
Stacker	752-01-05	<u>AGCAGTACCCCATG</u>	2353
Arrestor	641-62-04	<u>CACACAGAGGGAGGCG-NH2</u>	2354
Secondary Cassette		Set 10	
Probe	1138-49-02	AACGAGGGCGCACCTTCTGGAG-NH2	2355
Stacker	1138-49-01	<u>CTGGCCAAAGGAG</u>	2356
Invader	1138-49-03	GTCCTGCATGAGATCTGTCTGA	2357
Arrestor	1138-49-04	<u>CTCCAGAAGGTGCGC</u>	2358
Secondary Cassette		Set 11	
Probe	1138-49-06	AACGAGGGCGCACTCTGCTTCT-NH2	2359
Stacker	1138-49-05	<u>GGAGCTGGCCAA</u>	2360
Invader	1138-49-07	TGGTGTCTCTGCATGAGATCTGA	2361
Arrestor	1138-49-08	<u>TCGAGAAGCAGAGTGCGC</u>	2362
Secondary Cassette		Set 11	
Probe	1138-49-10	AACGAGGGCGCACCATGAGATCT-NH2	2363
Stacker	1138-49-09	<u>GTCTGCTTCTGGA</u>	2364
Invader	1138-49-11	GAGTCTGCTGGTGTCCCTGA	2365
Arrestor	1138-49-12	<u>AGATCTCATGGTGCGC</u>	2366
Secondary Cassette		Set 11	
Stacker	1163-01-01	<u>TGGCCAAAGGAGCA</u>	2367
Probe	1163-01-02	AACGAGGGCGCACTTCTGGAGC-NH2	2368
Invader	1163-01-03	TCCTGCATGAGATCTGTCTGCA	2369
Arrestor	1163-01-04	<u>GCTCCAGAAGTGCGC</u>	2370
Secondary Cassette		Set 11	
Stacker	1163-01-05	<u>GGCCAAAGGAGCAC</u>	2371
Probe	1163-01-06	AACGAGGGCGCACTCTGGAGCT-NH2	2372
Invader	1163-01-07	CCTGCATGAGATCTGTCTGCTA	2373
Arrestor	1163-01-08	<u>AGCTCCAGAGTGCGC</u>	2374
Secondary Cassette		Set 11	
Stacker	1163-01-09	<u>GCCAAAGGAGCACG</u>	2375
Probe	1163-01-10	AACGAGGGCGCACCTTGAGCTC-NH2	2376

Same as 435-67-04 with 3' Amine

HEX = Hexanediol

FIG. 47A-71

Invader	1163-01-11	CCTGCATGAGATCTGTCTGCTTA	2377
Arrestor	1163-01-12	<u>GAGCTCCAGGTGCGC</u>	2378
Secondary Cassette		Set 11	
84h6r			
Probe	688-51-01	CGCCGAGATCAGCCCAACGACGGTCT	2379
Invader	688-51-02	AGCCCTTGAGTTTAATAACTTCATAGGCACTA	2380
Arrestor	688-51-03	<u>AGACCGTCGTTGGCGTGATC</u>	2381
Secondary Cassette		Set 14	
Probe	688-51-04	CGCCGAGATCACCTCAACACCATAAAAGCCA	2382
Invader	688-51-05	CGGGAGACTGAGGAATACGTACCCACCA	2383
Arrestor	688-51-06	<u>TGGCTTTTATGGTGTGAGGTGATC</u>	2384
Secondary Cassette		Set 14	
MSH2			
Probe	690-32-02	CCGTCACGCCCTCCGAACCTGCCCTAG	2385
Invader	690-32-04	<u>GTATAATAGTCCCGACGATCAAAGAGGC</u>	2386
Stacker	709-52-01	GGTCCTTGGGYAGGG	2387
Arrestor	690-32-05	<u>GCGGAGGCTTGACGGGATC</u>	2388
Secondary Cassette		Set 1	

FIG. 47A-72

bold indicates 2' O methyl base

ELISA Format Kits

Leukocyte-associated molecule-1 alpha subunit, human (h-LFA1)
G4731 Probe Set

SEQ ID NO

p	5'-CTCTCTCGTCTCCAGGGCGTCTCGG-PO4-3'	2389
i	5'-CTGTCACACACGTCGGTGCTGA-3'	2390
c	5'-AAAAAGGAGACGAGAGAGTG-3'	2391

for the remainder of the oligo sets on this list, the fret/target secondary sets are one of the following 11:

FRET/TARGET SETS

	FRET	TARGET
set 1	307-70-03	502-93-01
set 2	307-70-03	502-93-02
set 3	187-46-01	641-60-02
set 4	187-46-01	277-68-05
set 5	187-46-01	685-56-01
set 6	187-46-01	641-60-03
set 7	187-46-01	649-10-01
set 8	680-17-02	782-70-02
set 9	187-46-01	277-68-06
set 10	187-46-01	491-02-02
set 11	307-70-03	761-40-02

FRETS

307-70-03	5'-Fam-ATTCT(CY3)TCTCAGACT-NH2-3'	2392
187-46-01	5'-Fam-CAAC (CY3)GCTTCTCCTCCG-3'	2393
680-17-02	5'-Fam-CGCT (CY3)TCTCGCTCGC-3'	2394

TARGETS

502-93-01	5'-CAGTCTGAGATGAATGATACGAGAGAGT-NH2-3'	2395
502-93-02	5'-CAGTCTGAGATGAATGAGACGAGAGAGT-NH2-3'	2396
641-60-02	5'-CGGAGGAAGCAGTTGGAGGCGTGACGGT-NH2-3'	2397
277-68-05	5'-CGGAGGAAGCAGTTGGTGCCTCGTTAA-PO4-3'	2398
685-56-01	5'-GCGGAAGAAGCGGTTGGTGATCTCGGCGG-NH2-3'	2399
641-60-03	5'-CGGAAGAAGCAGTTGGAGGCGTGACGGT-NH2-3'	2400
649-10-01	5'-CGGAAGAAGCAGTTGGTGGCCTCGTTAA-NH2-3'	2401

FIG. 47A-73

782-70-02	5'-GCGAGAGAGACAGCGCAAAACCTGCCGTTTC-3'	2402
277-68-06	5'-CGGAGGAAGCAGTTGTCCGCGAAGATG-3'	2403
491-02-02	5'-CGGAAGAAGCAGTTGGAGACGTGACTGTGG-NH2-3'	2404
761-40-02	5'-GGAGTGAGACAGCGAAAGACTGCCGTTCT-3'	2405

Cell Lysate Kits

adipocyte lipid binding protein, mouse (m-aP2)

C289 Probe Set

I	FRET/TARGET SET 1	2406
p	5'-CCGCCATCTAGGGTTATGATGCTA-3'	2407
a	5'-CTCTCTCGTCTCCTTCACCTTCCTGTG-NH2-3'	2408
a	3'-PO4-AGCAGAGGAAGTGGAGGACAGC-5'	2409
a	3'-NH2-AGCAGAGGAAGTGGAGGACAGC-5'	2410
p	3'-PO4-AGAGCAGAGGAAGTGGAGGACAGC-5'	2411
p	5'-AACGAGGCGCACCTTCACCTTCCTGTG-NH2-3'	2412
a	5'-AACGAGGCGCACCTTCACCTTCCTGTG-Biotin-3'	2413
a	3'-PO4-CCGCGTGGAAAGTGGAGGACAGC-5'	2414
p	3'-PO4-CTCCGCGTGGAAAGTGGAGGACAGC-5'	2415
a	5'-CATCTTCGGGACTTCACCTTCCTGTG-NH2	2416
a	3'-PO4-GCCTGAAGTGGAGGACAGC-5'	2417
p	3'-PO4-GCGCCTGAAGTGGAGGACAGC-5'	2418
p	5'CTTGCTCCCCGTGCTTCACCTTCCTGTG-NH2	2419
a	5'CTTGCTCCCCGTGCTTCACCTTCCTGTG-Biotin	2420
a	3'-PO4-GGGCACGAAGTGGAGGACAGC-5'	2421
	3'-PO4-AGGGGCACGAAGTGGAGGACAGC-5'	

G392 Probe Set

p	FRET/TARGET SET 1	2422
I	5'-CTCTCTCGTCTCCACATTCACCACCAAG-NH2-3'	2423
	5'-TTGTGTAAGTCACGCCCTTCATAAT-3'	

rev-ErbA, mouse (m-revErbA)

C155 Probe Set

p	FRET/TARGET SET 4	2424
I	5'-AACGAGGCGCACGAAGCAGGGTAATGAATCT-NH2-3'	2425
	5'-CCACTCCTGAAGGCTCCGCAGTC-3'	

Carnitine palmitoyltransferase, mouse (m-CPT-1)

T352 Probe Set

p	FRET/TARGET SET 2	2426
I	5'-CTCTCTCGTCTCAATGCCGTGCGCC-NH2-3'	2427
	5'-GCTTCAGGGTTGTCGGAAGAAGAAC-3'	

FIG. 47A-74

C851 Probe Set				
p	FRET/TARGET SET 2	5'-CTCTCTCGTCTCGTTTGGGGGATACAT-NH2-3'	2428	
i		5'-CGGCTTGATCTCTTCACGGTCCAC-3'	2429	
Carnitine palmitoyltransferase, human (h-CPT-1)				
U744 Probe set	FRET/TARGET SET 2	5'-CTCTCTCGTCTCAACTTCAATACCACTGTAATCT-NH2-3'	2430	
p		5'-CTCACGTAATTTGTAGCCCAACGAGTTTC-3'	2431	
i		3'-NH2-GCAGAGTTGAAGTTTATGGTGACATTAGA-5'	2432	
a		5'-TGGTCCAAAGACCGACAGCAAAATCTTGAG-3'	2433	
s				
A456 Probe Set	FRET/TARGET SET 10	5'-CAGTCACGTCTCTTCAGGGAGTAGCGCA-NH2-3'	2434	
p		5'-CCCCGTGGTAGGAGAGCAGCACTA-3'	2435	
i		3'-NH2-GCAGAGAAAGTCCCTCATCGCGT-5'	2436	
a				
C759 Probe Set	FRET/TARGET SET 2	5'-CTCTCTCGTCTCGCCCAACGAGATT-NH2	2437	
p		5'-CTCCCACCAAGTCGCTCACGTAATTTGTAA-3'	2438	
i		5'-AATCCTGTTGGGCGAGACG-B-3'	2439	
a		5'-TTAACTTCAATACCACTGTAATCTTGGTCCAAGACCG-3'	2440	
s				
G329 Probe Set	FRET/TARGET SET 4	5'-ACCGAGGCGCACCAATTATTCCTAACG-b-3'	2441	
p		5'-GCCGTTTCCAGAGTCCGATTGATTTTGA-3'	2442	
i		3'-(biotin)-GCCGTTGTTAATAAGGATTGC-5'	2443	
a				
C1763 Probe Set	FRET/TARGET SET 9	5'-CATCTTCGGGAGACATTTCTTGATTCCTT-3'	2444	
p		5'-AAAGGTGCTGGGCTCGTGCT-3'	2445	
i		3'-(biotin)-GCCCTCTGTAAAGAACTACTAAGGAA-5'	2446	
a				
Phosphatidylinositol-3-phosphate p110 __, human (h-PI3Kp110_)				
G1045 Probe Set (FV Arm)	FRET/TARGET SET 4	5'-AACGAGGCGCACCAGTTTCCTCTGTG-NH2-3'	2447	
p		5'-GACCAGCCCTGACATGAACTTTAC-3'	2448	
i		3'-NH2-CGCGTGGTCAAAGGAGACAC-5'	2449	
a				

FIG. 47A-76

C1521 Probe Set	FRET/TARGET SET 2	2450
p	5'-CTCTCTCGTCTCGGAGGGTAATAAGG-NH2-3'	2451
i	5'-GCTGCCCTTTTCAATAATCTTATCGAAC-3'	2452
a	3'NH2-AGCAGAGCCCTCCCATTTATTCC-5'	
C2667 Probe Set	FRET/TARGET SET 2	2453
p	5'-CTCTCTCGTCTCGTTGTATTCTTTAAGCCAG-NH2-3'	2454
i	5'-CGGTCCAGGTCATCCCCAGAC-3'	2455
a	3'NH2-AGCAGAGCAACATAAGAAAATTCGGTC-5'	
G537 Probe Set	FRET/TARGET SET 2	2456
p	5'-CTCTCTCGTCTCCTCTGGTGGATATGTTTG-NH2-3'	2457
i	5'-CTAAGTTTTCAGGGATGGATGGTTCATGC-3'	2458
a	3'NH2-AGCAGAGGAGACCACCTATACAAAC-5'	
T3192 Probe Set	FRET/TARGET SET 2	2459
p	5'-CTCTCTCGTCTCAACTGTGTGGC-NH2-3'	2460
i	5'-TTAAGATCTGTAGTCTTTCCGAAC-3'	2461
a	3'NH2-AGCAGAGTTCACACACCCCG-5'	
Cartilage-derived morphogenetic protein 1, human (h-CDMP1)		
A831 Probe Set	FRET/TARGET SET 6	2462
p	5'-CCGTCACGCCCTCCTGTTGCCCTCCC-(biotin)-3'	2463
i	5'-AGCCTCCAAC TTCACGCTGT-3'	2464
a	5'-GGGAGGCAACAGGAGGCG-(biotin)-3'	
A1691 Probe Set	FRET/TARGET SET 5	2465
p	5'-CCGCCGAGATCACTGAAGAGGATGCTGATGG-(biotin)-3'	2466
i	5'-ACACCCACGTTGTTGGCAGAGTCAAG-3'	2467
a	5'-CCATCAGCATCCTCTTCAGTGATCTCGG-(biotin)-3'	
b-actin, rat (r-bACT)		
C1671 Probe Set (longer)	FRET/TARGET SET 6	2468
p	5'-CCGTCACGCCCTCGCCTTAGGGTTCA-NH2-3'	2469
i	5'-TCTGGGTCATCTTTTACCGTTGA-3'	2470
a	3'-GCGGAGCGGAATCCCAAGT-5'	2471
s	5'-GAGGGGCCCTCGGTGAGC-3'	

FIG. 47A-77

Bile Salt port Pump, rat (r-BSEP)	p	FRET/TARGET SET 5	2472
	p	5'-CCGCCGAGATCACGAGTTCTTGCCTTTC-(biotin)-3'	2473
	i	5'-CCGCCGAGATCACGAGTTCTTGCCTTTC-NH3-3'	2474
	a	5'-TTCACACACGGCTTTTCTGGTATCTCC-3'	2475
		3'-(biotin)-CTAGTGCTCAAGAACGGGAAG-5'	
G1288 Probe Set	p	FRET/TARGET SET 2	2476
	i	5'-CTCTCTCGTCTCCACAGAAGGCCAGT-(biotin)-3'	2477
	a	5'-TTCTTCATCTAGGACAAAGTGGAACCATAA-3'	2478
		5'-ACTGGCCTTCTGGGAGACG-(biotin)-3'	
A790 Probe Set	p	FRET/TARGET SET 6	2479
	i	5'-CCGTACGGCTCTTTCCTCATTCCTCCT-(biotin)-3'	2480
	a	5'-CCCAATTTCCATTCTCATTATTCTCCGGAAGTAAATC-3'	2481
		5'-AGGAGATGAGGAAGAGGCG-(biotin)-3'	
Nitric Oxide Synthase 2A, human (h-iNOS2) A3418 Probe Set	p	FRET/TARGET SET 6	2482
	i	5'-CCGTACGGCTCTGTCTTTCTTCGC-(biotin)-3'	2483
	a	5'-GCTGCACCGCCACCC-3'	2484
		5'-GCCGAAGAAAGACAGAGGCG-(biotin)-3'	
Neutral Carboxy Ester Hydrolase, human (h-NCEH) A1221 Probe Set	p	FRET/TARGET SET 7	2485
	p	5'-AACGAGGGCGCACTCTTCTTATTCTCCTG-B-3'	2486
	i	5'-AACGAGGGCGCACTCTTCTTATTCTCCTG-NH2-3'	2487
	s	5'-GTCTCAAAGTCCACCACAGTCTC-3'	2488
		5'-CAGGAGAATAAGAGAGTGCGC-(biotin)-3'	
A1221 Probe Set	p	FRET/TARGET SET 6	2489
	p	5'-CCGTACGGCTCTCTTCTTATTCTCC-3'	2490
	i	5'-CCGTACGGCTCTCTTCTTATTCTCC-NH2-3'	2491
	a	5'-GTCTCAAAGTCCACCACAGTCTC-3'	2492
	s	3'-GCGGAGAGAAGAATAAGAGG-5'	2493
		5'-TGGGATGGGTCTGGGC-3'	

FIG. 47A-78

C1309. Probe Set		
p	FRET/TARGET SET 8	2494
i	5'-GAACGGCAGGTTTGGCACTCTTGGCATT-NH2-3'	2495
a	5'-CAGGTAGGCGTAGGTCTTGA-3'	2496
s	3'-NH2-CGTCCAACCGTGAGAACCGTAA-5'	2497
	5'-GGCTCTGTGCTGGGCTA-NH2-3'	
Peroxisomal Proliferation Activator Protein Receptor alpha, human (h-PPAR_)		
G1480 Probe Set	FRET/TARGET SET 6	
p	5'-CCGTCACGCCCTCCCGACTCCGTCT-(biotin)-3'	2498
i	5'-CGGGTGCAGCGCAGCATT-3'	2499
a	5'-AGACGGAGTCGGAGGCG-(biotin)-3'	2500
A1044 Probe Set	FRET/TARGET SET 6	
p	5'-CCGTCACGCCCTCTGTCACTTGATCGTTCT-(biotin)-3'	2501
i	5'-TGGCCTCATAAATCCGTATTTTAGCAAG-3'	2502
a	5'-AGAACGATCAAGTGACAGAGGCG-(biotin)-3'	2503
C 1311 Probe Set	FRET/TARGET SET 6	
p	5'-CCGCCGAGATCACGTGTCCTACGTTTAGAAG-(biotin)-3'	2504
i	5'-CACATGTACAATACCCCTCGCATTTTTCATC-3'	2505
a	5'-CTTCTAAACGTAGGACACCGTGATCTCGG-(biotin)-3'	2506
Peroxisomal Proliferation Activator Protein Receptor beta, human (h-PPAR_)		
A595 Probe set	FRET/TARGET SET 6	
6B. Designed truncated probe and stackers to reduce temperature		
p	5'-CCGTCACGCCCTCTCTCTGAATCTTGC-3'	2507
i	5'-CTGGCACTTGTTGCGGTTCTA-3'	2508
a	3'-NH2-GCGGAGAGAAAGACTTAGAACG-5'	2509
s	5'-AGCTGCGCTCACACTTCTCGT-3'	2510
6C. Design for new INVADER assay with 50% 2'-Me.	FRET/TARGET SET 6	
p	5'-CCGTCACGCCCTCTCTCTGAATCTTG-NH2-3'	2511
i	5'-CTGGCACTTGTTGCGGTTCTA-3'	2512
a	3'-NH2-GCGGAGAGAAAGACTTAGAAC-5'	2513
s	5'-CAGCTGCGCTCACACTTCTCGT-NH2-3'	2514

FIG. 47A-79

6D. Truncate probe.		
p	FRET/TARGET SET 6	2515
i	5'-CCGTCACGCCCTCTCTTCTGAATCTT-NH2-3'	2516
s	5'-CCTGGCACCTTGTTCGGTTCTA-3'	2517
	5'-GCAGCTCGGCTCACACTTCTCGT-NH2-3'	
C891 Probe Set		
p	FRET/TARGET SET 7	2518
i	5'-AACGAGGCGCACGGTAGGCATTGTAGA-3'	2519
a	5'-CCTTCTTTTGGTCATGTTGAAGTTTTTCAC-3'	2520
s	3'-CGCGTGCCATCCGTAACATCT-5'	2521
	5'-TGTGCTTGGAGAAGGCCCTTCA-3'	
Substance P, rat (r-SubP)		
C344 Probe Set	FRET/TARGET SET 6	2522
p	5'-CCGTCACGCCCTCGCCACTTGTTTTTCA-NH2-3'	2523
i	5'-CCATGCCCATAAAGAGCCTTTAACAGGA-3'	2524
a	3'-NH2-GCGAGCGGTGAACAAAAAGT-5'	
s	NO STACKER	
A396 Probe Set	FRET/TARGET SET 6	2525
p	5'-CCGTCACGCCCTTTATGCCCTTTTGTGA-NH2-3'	2526
i	5'-TGCCCATTAGTCCAAAGGAATCTGTA-3'	2527
a	3'-GCGGAGAAATACGGAAAAACACT-5'	2528
s	5'-GAGATCTGACCATGCCCATAAAGAGCC-NH2-3'	
C752 Probe Set	FRET/TARGET SET 7	2529
p	5'-AACGAGGCGCACGCTGGCAAACCTTGT-NH2-3'	2530
i	5'-CCTTCTGTCTTTGGAGACTTGCATCA-3'	2531
a	3'-NH2-CGCGTGCACCGTTTGAACA-5'	2532
s	5'-ACAACTCCATCAACACTGTGCTTTGCTG-NH2-3'	
Hepatic Lipase, human (h-LIPC)		
A830 Probe Set	FRET/TARGET SET 7	2533
p	5'-AACGAGGCGCACCTCTAGGAAGTGGCA-NH2-3'	2534
i	5'-GTGCTGGGCAATATGCTGTAGAGCG-3'	2535
a	3'-NH2-CGCGTGAGATCCTTCACCGT-5'	2536
s	5'-GCCAGGCTGGAAGGAGC-NH2-3'	
C1154 Probe Set	FRET/TARGET SET 5	

FIG. 47A-80

p	5'-CCGCCGAGATCACCGTCTCAGTTTGGT-NH2-3'	2537
i	5'-CGAGTAGTGACATGGTAAAGTTGTTTGATTGGCT-3'	2538
a	3'-NH2-CTCTAGTGGCAGAGTCAAACCA-5'	2539
Hepatic Lipase, rat (r-LIPC)		
G357 Probe Set		
p	FRET/TARGET SET 5	
i	5'-CCGCCGAGATCACCGTTCACGGGT-NH2-3'	2540
a	5'-GGGAGATCCAGTCCACTAATCCA-3'	2541
s	3'-NH2-TCTAGTGGTGCAAGTGCCCAA-5'	2542
	5'-GGGACTGTCGGGACTTCAGG-NH2-3'	2543
C1167 Probe Set		
p	FRET/TARGET SET 8	
i	5'-GAACGGCAGGTTTGGGAAATTTCTTTATTTCT-NH2-3'	2544
a	5'-ATTCTTCGCCCAGGGTGATG-3'	2545
s	3'-NH2-GTCCAAACCCCTTAAAGAAATAAGAA-5'	2546
	5'-CTTTTGTCCCCAGCAGTGT-NH2-3'	2547
Metabotropic Glutamate Receptor 2, rat (r-mGluR2)		
C1403 Probe Set		
p	FRET/TARGET SET 7	
i	5'-AACGAGGCGCACGGTGGTGGGA-NH2-3'	2548
a	5'-GCCTCATAGCATCGCAGAGGTGT-3'	2549
s	3'-NH2-CGCGTGCCACCACAAACCCT-5'	2550
	5'-CAGAGGGCACGGTGCATGTTGT-NH2-3'	2551
G-protein coupled receptor 2, rat (r-ETBR-LP2)		
A1629 Probe set		
p	FRET/TARGET SET 8	
i	5'-GAACGGCAGGTTTGTCAAGCAGACCGC-NH2-3'	2552
a	5'-GAGAGGGCCAAAGTGAGACCATGTGAAAGAAA-3'	2553
s	3'-NH2-CGTCCAAACAGTCGTCTGGCG-5'	2554
	5'-CATGGATCGGCATGGCCCC-NH2-3'	2555
i kappa b alpha, human (h-MAD3)		
C542 Probe Set		
p	FRET/TARGET SET 7	
i	5'-AACGAGGCGCACGGTGTAGGGGGG-(biotin)-3'	2556
a	5'-GCCCTGCTCACAGGCAAT-3'	2557
	5'-CCCCCTACACCGTGGCG-(biotin)-3'	2558
C363 Probe Set		
	FRET/TARGET SET 6	

FIG. 47A-81

P	5'-CCGTCACGCCCTCGTCAGTGCCCTTTTC-(biotin)-3'	2559
I	5'-CACCTGGCGGATCACTTCCATGT	2560
A	5'-GAAAAGGCACTGACGAGGCG-(biotin)-3'	2561

G953 Probe Set		
P	5'-CCGTCACGCCCTCCCTCATCCTCACT-(biotin)-3'	2562
I	5'-ACTCTGACTCTGTGTCATAGCTCTT	2563
A	5'-AGTGAGGATGAGGGAGGCG-(biotin)-3'	2564

C923 Probe Set		
P	5'-AACGAGGCGCACGGTTTCTAGTGTCANH2-3'	2565
I	5'-CTCACTCTCTGGCAGCATCTGAAT-3'	2566
A	3'-NH2-CGCGTGCCAAAGATCACAGT-5'	2567
S	5'-GCTGCCCCAGCTGC-NH2-3'	2568

Lecithin cholesterol acyltransferase, human (h-LCAT)

C821 Probe Set (truncated Probe Design)		
P	5'-CCGCCGAGATCACGGTTATGCGCTG-NH2-3'	2569
I	5'-CCAGGGGGAGGTGGTC-3'	2570
a	3'-NH2-TCTAGTGCCAAATACGCGACG-5'	2571
S	5'-CTCCTCTTTCAGCTTGATGCTGG-NH2-3'	2572

C827 Probe Design		
p	5'-GAAACGGCAGGTTTGGGTGGTGTATGCG-NH2-3'	2573
I	5'-AGAGGGAAACATCCAGGGGGAG-3'	2574
a	3'-NH2-CGTCCAAACCCACCACCAATACGC-5'	2575

C1217 Probe Design		
p	5'-CCGCCGAGATCACGAGATGCTGTATCCC-NH2-3'	2576
I	5'-GGTCAGGTGCTGAAGACCATGTTG-3'	2577
a	3'-NH2-TCTAGTGCTCTACGACATAGGG-5'	2578

Apolipoprotein A-1, human (h-ApoA1)

A177 Probe Set		
p	5'-CCGTCACGCCCTCTGAGCACATCCACG-NH2-3'	2579
I	5'-ACATAGTCTCTGCCGCTGTCTTA-3'	2580
a	3'-NH2-GCGGAGACTCGTGTAGGTGC-5'	2581
S	5'-TACACAGTGCCAGGTCTT-NH2-3'	2582

FIG. 47A-82

A227 Probe Set (titrate length of 2'-O-Me in Invader)

p 5'-GAACGGCAGTTTGTCCCAAGGCG-NH2-3' 2583
i 5'-GTCAAGGAGCTTTAGGTTTAGCTGTTTA-3' 2584
i 5'-GTCAAGGATCTTTAGGTTTAGCTGTTTA-3' 2585
i 5'-GTCCCAGTTGTCAAGGATCTTAGGTTTAGCTGTTTA-3' 2586
A 3'-NH2-GTCCAAACAGGGTCCGCC-5' 2587
s 5'-AGCCTTCAAACCTGGACACATAGTCTC-NH2-3' 2588

G350 Probe Set

p 5'-CCGCCGAGATCACTTCTGTCTCCTT-NH2-3' 2589
i 5'-CTCCTGCCTCAGGCCG-3' 2590
a 3'-NH2-TCTAGTGGAGACAGAGGAA-5' 2591
s 5'-TTCCAGGTTATCCCAGAACTCC-NH2-3' 2592

G233 Probe Set

p 5'-AGAACGGCAGTCTTCTGTCTTCCCAAG-NH2-3' 2593
i 5'-CCAGTTGTCAAGGAGCTTTAGGTTTAGT-3' 2594
a 3'-NH2-CGTCAGAAAGACAAAAGGGTTCC-5' 2595
s 5'-CGGAGCCTTCAAACCTGGACACATAGT-NH2-3' 2596

Metabotropic Glutamate Receptor 1, rat (r-mGluR1)

T934 Probe Set

p 5'-AGAACGGCAGTCTTTAGAATAGGCGATCTGT-NH2-3' 2597
i 5'-CACTCAGGTCTATGCTTGTGGCT-3' 2598
a 3'-NH2-GTCAGAAATCTTATCCGCTAGACA-5' 2599
s 5'-GGGATGTCGAACAGCTGGAGAAGATTCT-NH2-3' 2600

Ubiquitin, human (h-UBI(Q))

G119 Probe Set (MO4 Arm)

p 5'-CCGTACGCTCCTTTACATTTTCTATCGTATCCG-(biotin)-3' 2601
i 5'-CCTTCCTTATCCTGGATCTTGGCA-3' 2602
a 3'-(biotin)-GCGGAGGAAATGTAAAAGATAGCATAGGC-5' 2603

G119 Probe Set

p 5'-CGCCGAGATCACCTTTACATTTTCTATCGTATCCG-(biotin)-3' 2604
i 5'-CCTTCCTTATCCTGGATCTTGGCA-3' 2605
a 3'-(biotin)-CTAGTGGAAATGTAAAAGATAGCATAGGC-5' 2606

FIG. 47A-83

G131 Probe Set	FRET/TARGET SET 9		
	p	5'-CATCTTCGCGACTGGATCTTGGCC-(biotin)-3'	2607
	i	5'-GCTGATCAGGAGGAATTCCTTCCTTATCT-3'	2608
	a	3'-(biotin)-GCCTGACCTAGAACCGG-5'	2609
Scanned G119 region (ELISA format (No Arrestors))	p	5'-CTCTCTCGTCTCTTACATTTTCTATCGTATCCGA-NH2-3'	2610
	p	5'-CTCTCTCGTCTCTTTACATTTTCTATCGTATCCG-NH2-3'	2611
	p	5'-CTCTCTCGTCTCCCTTACATTTTCTATCGTATCCG-NH2-3'	2612
	p	5'-CTCTCTCGTCTCCCTTACATTTTCTATCGTATC-NH2-3'	2613
	p	5'-CTCTCTCGTCTCGCCCTTACATTTTCTATCG-NH2-3'	2614
	i	5'-GGAATTCCTTCCTTATCCTGGATCTTGA-3'	2615
	i	5'-GGAATTCCTTCCTTATCCTGGATCTTGGC-3'	2616
	i	5'-CCTTCCTTATCCTGGATCTTGGCA-3'	2617
	i	5'-TTCCTTATCCTGGATCTTGGCCA-3'	2618
	i	5'-TCCTTATCCTGGATCTTGGCCTA-3'	2619
Ubiquitin, mouse (m-UBIQ) G294 Probe Set	FRET/TARGET SET 7		
	p	5'-CCGTCACGCCTCCCTCTGGATGTTGTA-(biotin)-3'	2620
	i	5'-CCAGGTGCAGGGTTGACTA-3'	2621
	a	3'-(biotin)-GCGGAGGGAAGACCTACAACAT-5'	2622
G294 Probe Set	FRET/TARGET SET 5		
	p	5'-CGCCGAGATCACCCCTTCTGGATGTTGTA-(biotin)-3'	2623
	i	5'-CCAGGTGCAGGGTTGACTA-3'	2624
	a	3'-(biotin)-CTAGTGGGAAGACCTACAACAT-5'	2625
G294 Probe Set	FRET/TARGET SET 6		
	p	5'-CCGTCACGCCTCCCTTCTGGATGTTGTAAT-NH2-3'	2626
	i	5'-CCAGGTGCAGGGTTGACTA-3'	2627
	a	3'-NH2-GCGGAGGGAAGACCTACAACATTA-5'	2628

FIG. 47A-84

G294 Probe Set	FRET/TARGET SET 6		
	p	5'-CCGTCACGCCCTCCCTTCTGGATGTTGTAATC-NH2-3'	2629
	i	5'-CCAGGTGCAGGGTTGACTA-3'	2630
	a	3'-NH2-GCGGAGGGAAGACCTACAACATTAG-3'	2631
T514 Probe Set	FRET/TARGET SET 7		
	p	5'-AACGAGGGCGCACATGTTGTAATCAGAGAGGG-NH2-3'	2632
	i	5'-TGCAGGGTTGACTCTTTCTGGA-3'	2633
	a	3'-NH2-CGCGTGTACAACATTAGTCTCTCTCCC-5'	2634
G750 Probe Set	FRET/TARGET SET 9		
	p	5'-CATCTTCGCGGACCTTCTGGATGTTGTA-NH2-3'	2635
	i	5'-GGACCAAGTGCAGGGTTGACTT-3'	2636
	a	3'-NH2-GCCTGGAAGACCTACAACAT-5'	2637
G185 Probe Set	FRET/TARGET SET 9		
	p	5'-CATCTTCGCGGACCTCACGTTCTCGATGG-NH2-3'	2638
	i	5'-CCCTCTTTATCCTGGATCTTGGCA-3'	2639
	a	3'-NH2-GCGCCTGAAGTGCAAGAGCTACC-5'	2640

FIGURE 48

12		
1	8	C
2	5	U
3	5	U
4	2	U
5	1	U
6	2	C
7	7	G
8	7	A
9	1	U
10	1	C

FIG. 49A-1

Secondary system			Oligo Sequence (5' to 3')		SEQ ID NO
FRET probe	FL-CAC-Z28-TGC TTC GTG G				3175
Secondary Reaction Template 1	CCA GGA AGC AAG TGG TGC GCC TCG tt				3176
Secondary Reaction Template 2	CCA GGA AGC AAG TGG AGG CGT GAC ggt				3177
Assays	SRT #	Oligo Type	Oligo Sequence (5' to 3')		SEQ ID NO
human CYP3A4	2	Probe	5'-CCG TCA CGC CTC GCC CCA CA-NH2-3'		654
		Probe	5'-CCG TCA CGC CTC GCC CCA CA-HEX-3'		3178
		Invader	5'-CAG CAC AGG CTG TTG ACC ATC ATA AAA C-3'		655
		Stacker	5'-ctttccatacttttatgacattc-3'		656
		Stacker	5'-ctttccatacttttatgacattc HEX-3'		3179
		Arrestor	5'-tgtggggcgaggcg-3'		657
		Arrestor	5'-tgtggggcgaggcg HEX-3'		3180
Arrestor	5'-tgtggggcgaggcg -3'			3181	
human CYP2C9	2	Probe	5'-CCG TCA CGC CTC ATG GAT AAT GCC C-NH2-3'		646
		Probe	5'-CCG TCA CGC CTC ATG GAT AAT GCC C-HEX-3'		3182
		Invader	5'-CAG GTG AGA AAA GGC ATT ACA GAT AGT GAA AGC-3'		647
		Stacker	5'-CAG AGG AAA GAG AGC TGC AGG G-3'		648
		Stacker	5'-cag agg aaa gag agc tgc agg g HEX -3'		3183
		Arrestor	5'-gggcattatccatgaggcg -3'		649
		Arrestor	5'-gggcattatccatgaggcg HEX-3'		3184
Arrestor	5'-gggcattatccatgaggcg -3'			3185	
h/r CYP1A2	1	Probe	5'-AAC GAG GCG CAC GGA CTG TTT TCT GC-NH2-3'		671
		Invader	5'-ctgtcaaaagtcctgatAGTGCTCCTC-3'		672
		Invader	5'-ctgtgtgaagtcctgatAGTGTTCTCCTC-3'		673
		Arrestor	5'-gcagaaaaacagtcctgcgc-3'		674
		Arrestor	5'-gcagaaaaacagtcctgcgc HEX-3'		3186

FIG. 49A-2

rat CYP2B2	2	Probe	5'-CCG TCA CGC CTC AGA GCC AAT CAC-NH2-3'	679
		Probe	5'-CCG TCA CGC CTC AGA GCC AAT CAC-HEX-3'	3187
		Invader	5'-CGA TCA TCA AGG GAT GGT GGC CTG TGC-3'	680
		Stacker	5'-CTG ATC AAT CTC CTT TTG GAC TTT CTC TGC G-3'	681
		Stacker	5'-CTG ATC AAT CTC CTT TTG GAC TTT CTC TGC G HEX-3'	3188
		Arrestor	5'-glgattggctctgaggcg -3'	682
		Arrestor	5'-glgattggctctgaggcg HEX-3'	3189
		Arrestor	5'-glgattggctctgaggcg -3'	3190
		Probe	5'-CCG TCA CGC CTC CAC CAT ATC CC-NH2-3'	638
		Probe	5'-CCG TCA CGC CTC CAC CAT ATC CC-HEX-3'	3191
human CYP2B6	2	Invader	5'-CCA GCG GTT TCC ATT GGC AAA GAT CAA-3'	639
		Stacker	5'-cggagaagaatgggtcgaccatg-3'	640
		Stacker	5'-cggagaagaatgggtcgaccatg HEX-3'	3192
		Arrestor	5'-gggatatggtgaggcg-3'	641
		Arrestor	5'-gggatatggtgaggcgg HEX-3'	3193
		Arrestor	5'-gggatatggtgaggcg -3'	3194
rat CYP4A3	1	Probe	5'-AAC GAG GCG CAC TTG ACA GAG TCC-NH2-3'	1454
		Invader	5'-GCT TCT CCC ATT TGT CTA GCA TTA TAA-3'	1459
		Stacker	5'-GCC ATG ATT TTG ACA TAG GGT TTG AGG ATG-3'	1460
		Stacker	5'-GCC ATG ATT TTG ACA TAG GGT TTG AGG ATG HEX-3'	3195
		Arrestor	5'-ggactctgtcaagtgcgc-3'	1458
		Arrestor	5'-ggactctgtcaagtgcgc HEX-3'	3196

FIG. 49A-3

human NR112	1	Probe	5'-AACGAGGCGCACGCAACTCGCA NH2-3'	3197
		Probe	5'-AACGAGGCGCACGCAACTCGCA HEX-3'	3198
		Probe	5'-AACGAGGCGCACGCAACTCGCA 3-morpholino1,2-propanediol-3'	3199
		Probe	5'-AACGAGGCGCACGCAACTCGCA 1,2-octanediol-3'	3200
		Probe	5'-AACGAGGCGCACGCAACTCGCA methoxyphenyl-3'	3201
		Probe	5'-AACGAGGCGCACGCAACTCGCA amine(C3)-3'	3202
		Probe	5'-AACGAGGCGCACGCAACTCGCA amine(C6)-3'	3203
		Invader	5'-GGCCTGCAGAGACTCTGC -3'	3204
		Stacker	5'- gccactgctaagcac -3'	3205
		Arrestor	5'- tgcgagttgcgtgcgc -3'	3206
		Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA NH2-3'	3207
		Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA HEX-3'	3208
		Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA 3-morpholino1,2-propanediol-3'	3209
human ABCC2	1	Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA 1,2 octanediol-3'	3210
		Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA methoxyphenyl-3'	3211
		Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA amine(C3)-3'	3212
		Probe	5'-AAC GAG GCG CAC CTC CAA TCT CA amine(C6)-3'	3213
		Probe	5'-CCC CCA CTA AGA TTT ATA CCC TTC TA -3'	3214
		Invader	5'- gcc aaa tct cct cca -3'	3215
		Stacker	5'-tga gat tgg agg tgc gc -3'	3216
		Arrestor		

FIG. 49A-4

Secondary system		Oligo Sequence (5' to 3')	SEQ ID NO
FRET probe		FL-CAC-Z28-TGC TTC GTG G	3217
Secondary Reaction Template 1		CCA GGA AGC AAG TGG TGC GCC TCG tt	3218
Secondary Reaction Template 2		CCA GGA AGC AAG TGG AGG CGT GAC ggt	3219
Secondary Reaction Template 3		CCA GGA AGC AAG TGA CGC AGC GAC ggt	3220
Assay	SRT #	Oligo Type	SEQ ID NO
Human CYP 2B6	1	Probe	3221
		Invader	639
		Stacker	3222
		Arrestor	3223
		Stacker	3224
Human CYP 2B6 e6	2	Probe	3225
		Invader	1911
		Stacker	3226
		Arrestor	3227
		Stacker	3228
	2	Probe	3229
		Stacker	3230
		Arrestor	3231
		Stacker	3232
Human CYP 2E1	1	Probe	3233
		Invader	3234
		Stacker	3235
		Arrestor	3236

FIG. 49A-5

1	Probe	AACGAGGCGCACCCCTGAGTGC-NH ₂	3237
	Invader	GCTGGCCCTTGGGTCTTA	3238
	Stacker	ttccagcagggaagtg	3239
	Arrestor	gcactcagggtgtcgc	3240
1	Probe	AACGAGGCGCACCCACGAGCA-NH ₂	3241
	Invader	CTGTGCTTTTCCCTTCTCCATTTA	3242
	Stacker	ggcagtcggtgagg	3243
	Arrestor	tgctcgtgggtgcgc	3244
1	Probe	AACGAGGCGCACCTTGGCACTAC-NH ₂	3245
	Invader	GGTTGTCATACAAAACAGAGTCCAGAGA	3246
	Invader	gtcatacaaaacaGAGTCCAGAGA	3247
	Stacker	gactgtgcccttgg	3248
	Arrestor	gtagtgccaagtgcgc	3249
1	Probe	AACGAGGCGCACCTTGGCAGGACA-NH ₂	3250
	Invader	gctacagaaatgaggggcaAAAAAGATGAGA	3251
	Stacker	ctcagcagaaggatgg	3252
	Arrestor	tgctctgccaagtgcgc	3253
	Stacker	ctcagcagaggatgg	3254
2	Probe	CCGTACACGCCTCTTGGCAGGACA-NH ₂	3255
	Arrestor	tgctctgccaagaggcg	3256
1	Probe	AACGAGGCGCACCTTGGCAGGAC-NH ₂	3257
	Stacker	actcagcagaaggatgg	3258
	Arrestor	gtcctgccaagtgcgc	3259
1	Probe	AACGAGGCGCACCTTGGCAGGA-NH ₂	3260
	Stacker	cactcagcagaaggatgg	3261
	Arrestor	tcctgccaagtgcgc	3262

Rat CYP 4A2

FIG. 49A-6

Rat CYP 4A2	1	Probe	AACGAGGCGCACCCGATTGTCC-NH ₂	3263
		Invader	gatttctaagaacattttaATTCATGATGA	3264
		Stacker	caagactctgagaactgaagg	3265
		Arrestor	ggacaatcgggtgcgc	3266
	2	Probe	CCGTACGCGCTCCCGATTGTCC-NH ₂	3267
		Arrestor	ggacaatcgggagggcg	3268
Rat CYP 4A2	1	Probe	AACGAGGCGCACTACTATTATTTTCATAG-NH ₂	3269
		Invader	CATTCTATCTACTGTTCTGCATCAGA	3270
		Stacker	aaaagatgaggcatacattaatc	3271
		Arrestor	ctatgaaataatagtagtcgc	3272
	1	Probe	AACGAGGCGCACTACTATTATTTTCATAGA-NH ₂	3273
		Stacker	aaagatgaggcatacattaatc	3274
		Arrestor	tctatgaaataatagtagtcgc	3275
	2	Probe	CCGTACGCGCTCTACTATTATTTTCATAGA-NH ₂	3276
		Arrestor	tctatgaaataatagtagggcg	3277
Rat CYP 4A2	1	Probe	AACGAGGCGCACAGGTGTCTGGAG-NH ₂	3278
		Invader	GGTCCACGCAACAAGCTGGGAC	3279
		Stacker	taaaagctacagaaatgagggc	3280
		Arrestor	ctccagacacctgtgcgc	3281
	2	Probe	CCGTACGCGCTCAGGTGTCTGGAG-NH ₂	3282
		Arrestor	ctccagacacctgagggcg	3283
	1	Probe	AACGAGGCGCACAGGTGTCTGGAGT-NH ₂	3284
		Stacker	aaaagctacagaaatgagggc	3285
		Arrestor	actccagacacctgtgcgc	3286

FIG. 49A-7

Rat CYP Pan 3A	2	Probe	CCGTCACGCCCTCGTTCCTGGG-NH ₂	2028
		Invader (degenerate)	GAGCAAACCTCATGYCAATRCAC	3287
		Stacker (degenerate)	tcattYccaaagggcag	3288
		Arrestor	cccaggaacgaggcg	2034
Rat CYP 4A3	1	Probe	AACGAGGCGCACTTTTGCTCCC-NH ₂	3289
		Invader	GGTCATAGAGCAGGACTCGTGA	3290
		Stacker	tgagagccactgtaag	3291
		Arrestor	gggagcaaaagtgcgc	3292
	2	Probe	CCGTCACGCCCTCTTTTGCTCCC-NH ₂	3293
		Arrestor	gggagcaaaagaggcg	3294
Rat CYP 4A3	1	Probe	AACGAGGCGCACGTTGTGATACCTT-NH ₂	3295
		Invader	gatgaaggccataaattAAAAATTGTGC	3296
		Stacker	tgggtatggaacgtcc	3297
		Arrestor	aaggatcacacaacgtgcgc	3298
	2	Probe	CCGTCACGCCCTCGTTGTGATACCTT-NH ₂	3299
		Arrestor	aaggatcacacaacgaggcg	3300
	1	Probe	AACGAGGCGCACTTGTGATACCTTT-NH ₂	3301
		Invader	gatgaaggccataaattAAAAATTGTGGA	3302
		Stacker	gggtatggaacgtccat	3303
		Arrestor	aaaggatcacacaagtgcgc	3304
	2	Probe	CCGTCACGCCCTCTTGTGATACCTTT-NH ₂	3305
		Arrestor	aaaggatcacacaagaggcg	3306

FIG. 49A-8

Rat CYP 4A3	1	Probe	AACGAGGCGCACCCATAGGGACC-NH ₂	3307
		Invader	CCATTCTTGGACTTCAACACAAAGTCTTGA	3308
		Stacker	gggatcctggtgg	3309
		Arrestor	ggtccctatgggtgcgc	3310
		Probe	CCGTACAGCCTCCCATAGGGACC-NH ₂	3311
	2	Arrestor	ggtccctatgggagggcg	3312
Rat CYP 4A3	1	Probe	AACGAGGCGGCACATGACGGGACAC-NH ₂	3313
		Invader	GCTACAGAAATGAGGGCAAAAAAATGAGC	3314
		Stacker	tacagagaggatggg	3315
		Arrestor	gtgtcccgatcatgtgcgc	3316
		Probe	CCGTACAGCCTCATGACGGGACAC-NH ₂	3317
	2	Arrestor	gtgtcccgatcatgagggcg	3318
Human/Mouse HES-1	1	Probe	AACGAGGCGCACTGACTTTTCTGTG-NH ₂	3319
		Invader	CGTCTTTTCTCCATAATAGGCTTTTGAA	3320
		Stacker	atcagatgctgtctttggt	3321
		Arrestor	cacagaaagtcagtgcg	3322
		Stacker	gtcagatgctgtctttggt	3323
		Stacker	ctaagatgctgtctttggt	3324
		Stacker	ctgagatgctgtctttggt	3325
		Stacker	atcagagccgctctttggt	3326
		Stacker	atcagagccgctctttg	3327
rat HSP70-1,2	1	Probe	5'- AAC GAG GCG CAC CCG GTT CTC NH2-3'	3328
		Invader	5'- GAT CTC CTC CGG GTA GAA CGA A -3'	3329
		Stacker	5'- gcc ctt gta gtt cac -3'	3330
		Arrestor	5'-gag aac cgg gtg cgc -3'	3331
rat HSP70-1,2	1	Probe	AACGAGGCGGCACACTCGAAGC-NH ₂	3332
		Invader	GGCGGGATGCCGCTCAC	3333
		Stacker	gccccagcagg	3334
		Arrestor	gcttcgagtgtcgc	3335

FIG. 49A-9

rat HSP70-1,2	1	Probe	AACGAGGCGCACGGTACGCCT-NH ₂	3336
		Invader	CACCGGGTGGCCAC	3337
		Stacker	cggcgatctctca	3338
		Arrestor	aggcgtaccgtgcgc	3339
	1	Probe	AACGAGGCGCACGGTACGCCTC-NH ₂	3340
		Stacker	ggcgatctctcat	3341
		Arrestor	gaggcgtaaccgtgcgc	3342
	2	Probe	CCGTACGCCTCGGTACGCCTC-NH ₂	3343
		Arrestor	gaggcgtaaccgagcg	3344
	1	Probe	AACGAGGCGCACGTACGCCTC-NH ₂	3345
		Invader	ACCGGTGGCCAGC	3346
		Arrestor	gaggcgtaaccgtgcgc	3347
	3	Probe	CCGTGCTGCGTGCTCAACTC-NH ₂	3348
		Invader	GCCGGCGGGATGCCC	3349
		Stacker	gaagcgcacag	3350
		Arrestor	gagttgagcacgcagc	3351
rat HSP70-1,2,3	1	Probe	AACGAGGCGCACGACCATG-NH ₂	3352
		Invader	GCGATCTCCTTCATCTTGGTA	3353
		Invader	CAGTCTCCTTCATCTTGGTA	3354
		Stacker	gcgatctcttcattcttgta	3355
		Arrestor	catggctgtggtgcgc	3356
rat HSP70-1,2,3	1	Probe	AACGAGGCGCACCATGGCCCC-NH ₂	3357
		Invader	CAGGTTGTTGTCGCGCGTA	3358
		Invader	GAGGTTGTTGTCGCGCGTA	3359
		Stacker	tctgcacctgta	3360
		Arrestor	gggccatgtgtgcgc	3361

FIG. 49A-10

rat HSP70-1,2,3	1	Probe	AACGAGGCGCACCACTGGATCA-NH ₂	3362
		Invader	CCCTCTCGCCCTCGTAA	3363
		Stacker	gcaccccgcc	3364
		Arrestor	tgatccagggtggtgcgc	3365
rat HSP70-1,2,3	1	Probe	AACGAGGCGCACTCAGCACCA-NH ₂	3366
		Invader	GGCGATCTCCTTCATCTTGGA	3367
		Invader	TGCAGTCTCCTTCATCTTGGA	3368
		Stacker	tggacgagatctctc	3369
		Arrestor	tggtgctgagtgcc	3370
Human AGC 1,2	1	Probe	AACGAGGCGCACCCACTAGCTC-NH ₂	3371
		Invader	AGTTCAGTTCCTGAAGGGAGTA	3372
		Stacker	tccactaatgtccagc	3373
		Arrestor	gagctagtgggtgcgc	3374
Human AGC 1,2	1	Probe	AACGAGGCGCACCCCTTGTCTC-NH ₂	3375
		Invader	CGTCCTCACACCAAGGAACTCATA	3376
		Stacker	catagcagccttc	3377
		Arrestor	gagacaaggggtgcgc	3378
rat GRM1	1	Probe	AACGAGGCGCACCTTCTCATCTC-NH ₂	3379
		Invader	GCATCGGTTCAAGCCCATCA	3380
		Stacker	ggatggaaatcaggaggt	3381
		Arrestor	gagatgagaagggtgcgc	3382
	2	Probe	CCGTACGCGCTCCTTCTCATCTC-NH ₂	3383
		Arrestor	gagatgagaaggagcg	3384
	3	Probe	CCGTGCGTGCCTCTTCTCATCTC-NH ₂	3385
		Arrestor	gagatgagaagacgcag	3386

FIG. 49A-11

rat GRM1	1	Probe	AACGAGGCGCACCCCTTCTCATC-NH ₂	3387
		Invader	GCATCGGTTCAGCCCATATA	3388
		Stacker	tcggatggaatcagggag	3389
		Arrestor	gatgagaagggtgcgc	3390
		Probe	CCGTCACGCCCTCCCTTCTCATC-NH ₂	3391
	2	Arrestor	gatgagaagggagggcg	3392
rat GRM2	1	Probe	AACGAGGCGCACGAGAGATGAGGAGAGGG-NH ₂	3393
		Invader	GGCCAGGAAAGGACAGACAGGAAA	3394
		Arrestor	ccctctctcatctctcgtgcgc	3395
rat GRM2	1	Probe	AACGAGGCGCACGAGAGATGAGGAGAGGG-NH ₂	3396
		Invader	GCCAGGAAAGGACAGACAGGAAC	3397
		Arrestor	cctctctcatctctcgtgcgc	3398
rat GRM5	1	Probe	AACGAGGCGCACTGGAGGAAACTCAG-NH ₂	3399
		Invader	ggaattcaagctaataaaaGATATCATGAA	3400
		Stacker	agctccaataggtacagcc	3401
		Arrestor	ctgagtttctccagtgcg	3402
		Probe	AACGAGGCGCACTCCTTTCCAAG-NH ₂	3403
rat GRM5	1	Invader	CAAGAGTGTGGGATCTGAGTTGAA	3404
		Stacker	gtatgcagcatggcc	3405
		Arrestor	cttggaaggagtgcg	3406
		Stacker	gtatgcagcatggcctcctc	3407
		Probe	AACGAGGCGCACTCGGCCCA-NH ₂	3408
rat GRM5	1	Invader	CCATCTGTACAGTCATACCTGA	3409
		Stacker	gccatcactgcc	3410
		Arrestor	tgggccgagtgcg	3411
		Invader	ccatctgtcacGTCATACCTGA	3412

FIG. 49A-12

rat GRM7	1	Probe	AACGAGGCGCACGTCCTGTGC-NH ₂	3413
		Invader	AGTCTTTTCCAAATTCGCTCCTC	3414
		Stacker	attgcgatctgtcttc	3415
		Arrestor	gcacaggacgtgcgc	3416
	2	Probe	CCGTCACGCCCTCGTCCTGTGC-NH ₂	3417
		Arrestor	gcacaggacgaggcg	3418
rat TAC1	1	Probe	AACGAGGCGCACCTTCTTTCAAG-NH ₂	3419
		Invader	CTTCTTTCTAGTTCTGCATTGCGA	3420
		Stacker	ccacagaatttaaagctctttg	3421
		Arrestor	cttatgaaagaaggcg	3422
	2	Probe	CCGTCACGCCCTCCTTCTTTCAAG-NH ₂	3423
		Arrestor	cttatgaaagaaggcg	3424
rat CYP 7A1	2	Probe	CCG TCA CGC CTC GTC TTG GCC-NH ₂	3425
		Invader	5' GCC CAG AGA ATA GCG AGG TGC A 3'	3426
		Stacker	5' ttc tcc atg tcg tca aag gtg g 3'	3427
		Arrestor	5' ggc caa gac gag gcg 3'	3428
human PPAR-alpha	1	Probe	AACGAGGCGCACCTTTTCAGTTTG-NH ₂	3429
		Invader	TCTATGTCATGTTTCACAGGTAAGAAATTTCTGA	3430
		Stacker	cttttcagatcttggc	3431
		Arrestor	caaaactgaaaggcg	3432
	2	Probe	CCGTCACGCCCTCCTTTTCAGTTTG-NH ₂	3433
		Arrestor	caaaactgaaaggcg	3434

FIG. 49A-13

Secondary system			Oligo Sequence (5' to 3')	SEQ ID NO
FRET probe			FL-CAC-Z28-TGC TTC GTG G	3435
Secondary Reaction Template 1			CCA GGA AGC AAG TGG TGC GCC TCG tt	3436
Secondary Reaction Template 2			CCA GGA AGC AAG TGG AGG CGT GAC ggt	3437
Secondary Reaction Template 3			CCA GGA AGC AAG TGA CGC AGC GAC ggt	3438
Assays	SRT #	Oligo Type	Oligo Sequence (5' to 3')	SEQ ID NO
rat GPCR/CNS2	1	Probe	AACGAGGCGCACTCAGTGGAGAG - NH2	3439
		Invader	GGTCTGCCTCGTGAGCA	3440
		Stacker	gtaagccaccacgatg	3441
		Arrestor	tctccactgagtgcgc	3442
human P53AIP1	1	Probe	5'- AACGAGGCGCACCCAGGTGTG-NH2-3'	3443
		Invader	5' -TCACTGCAGGGACTTACCCAGA- 3'	3444
		Stacker	tggtctgagccc	3445
		Arrestor	acacctgggtgcgc	3446
human P53AIP1	1	Probe	AACGAGGCGCACCCAGGTGT NH2	3447
		Stacker	gtgtgtctgagccc	3448
	1	Probe	AACGAGGCGCACCCCTTCCTCT NH2	3449
		Invader	GGAGGAGGAGGGGCTGA	3450
human P53AIP1		Stacker	tgggactattgatcaggg	3451
		Arrestor	agaggaaggggtgcgc	3452
human P53AIP1	1	Probe	AACGAGGCGCACCTTCATTATTGGC NH2	3453
		Invader	CCACAAGCTTCCGAGTCCGTCATA	3454
		Stacker	cacaggaacgacttcttg	3455
		Arrestor	gccaatatgaaggtgcgc	3456

FIG. 49A-14

human P53AIP1	1 Probe	AACGAGGCGCACCGCTGCGT NH2	3457
	Invader	GGCCCTGCACCTCAGAA	3458
	Stacker	gtgagctctgggg	3459
	Arrestor	acgcagcggtgcgc	3460
mouse LLPL	1 Probe	AACGAGGCGCACCTGTCCGTC NH2	3461
	Invader	CAGATTCAAGCCAGAGTGTGAAGTAGA	3462
	Stacker	ttcttgagcaaggtag	3463
	Arrestor	agacggacaggtgcgc	3464
mouse LLPL	1 Probe	AACGAGGCGCACCTGTCCGTCT NH2	3465
	Stacker	tcctggagcaaggtagt	3466
mouse LLPL	1 Probe	AACGAGGCGCACCCAGAGTGTG NH2	3467
	Invader	GCAGAAGCAGTTCAGATTCAGA	3468
	Stacker	aagtagctgtccgtct	3469
	Arrestor	cacactctgggtgcgc	3470
mouse LLPL	1 Probe	AACGAGGCGCACCCAGAGTGT NH2	3471
	Stacker	gaagtagctgtccgtc	3472
mouse LLPL	1 Probe	AACGAGGCGCACCAAGTAGAGCA NH2	3473
	Invader	AGACTTGTGGCTGCCGCTGA	3474
	Stacker	tgtacacgtgtcccatg	3475
	Arrestor	tgctctacttctgtgtgcgc	3476

FIG. 49A-15

Secondary system			Oligo Sequence (5' to 3')	SEQ ID NO
FRET probe			FL-CAC-Z28-TGC TTC GTG G	3477
Secondary Reaction Template 1			CCA GGA AGC AAG TGG TGC GCC TCG tt	3478
Secondary Reaction Template 2			CCA GGA AGC AAG TGG AGG CGT GAC ggt	3479
Secondary Reaction Template 3			CCA GGA AGC AAG TGA CGC AGC GAC ggt	3480
Assays	SRT #	Oligo Type	Oligo Sequence (5' to 3')	SEQ ID NO
mArbp	1	Probe	AACGAGGCGCACCATGCGGATCT NH2	3481
		Invader	gccttccCTCGGAGCGAA	3482
		Stacker	gctgcatctgcttgg	3483
		Arrestor	agatccgcgatggtgcgc	3484
mArbp	1	Probe	AACGAGGCGCACCTGCACATCAC NH2	3485
		Invader	CACCTTGTCTCCAGTCTTTATCAGA	3486
		Stacker	tcagaatttcaatggtgcc	3487
		Arrestor	gtgatgtgcagggtgcgc	3488
mArbp	1	Probe	AACGAGGCGCACCTGCACATCACT NH2	3489
		Stacker	cagaatttcaatggtgcct	3490
mArbp	1	Probe	AACGAGGCGCACCTCCACAGACAA NH2	3491
		Invader	CAGTAAGTGGGAAGGTGTACTCAGTA	3492
		Stacker	tgccaggacgcgct	3493
		Arrestor	ttgtctgtggagggtgcgc	3494
mArbp	1	Probe	AACGAGGCGCACCTCCAGGTG NH2	3495
		Invader	TCTCCAGAGCTGGGTTGTTA	3496
		Stacker	gcccctgatagcc	3497
		Arrestor	acctggagggtgcgc	3498

FIG. 49A-16

mArbp	1	Probe Invader Stacker Arrestor	AACGAGGCGCACCATGCGGATCTG NH2 GCCTTCCCTCGGAGCGAA ctgcatctgcttgag cagatccgcatggtgcgc	3499 3500 3501 3502
mArbp	1	Probe Invader Stacker Arrestor	AACGAGGCGCACACATGCGGATCT NH2 GCCTTCCCTCGGAGCGC gctgcatctgcttgg agatccgcatggtgcgc	3503 3504 3505 3506
rABCb11	2	Probe Invader Stacker Arrestor	CCGTCACGCGCTCCCATTATGCTACA NH2 TTGTCCCGCTACTTGATGTTGTA gtcaaacagcacgtgc tgtagcataatggaggcgc AACGAGGCGCACCCATTATGCTACA NH2 tgtagcataatgggtgcgc	3507 3508 3509 3510 3511 3512
rABCb11	1	Probe Invader Stacker Arrestor	AACGAGGCGCACGAGACAATCC NH2 GTCAAACAGCACTGGCTCCTGC cga1gttggaacggaggaaac ggattgtctccgtgcgc CCGTCACGCGCTCGGAGACAATCC NH2 ggattgtctccgaggcgc	3513 3514 3515 3516 3517 3518
rABCb11	1	Probe Invader Stacker Arrestor	AACGAGGCGCACGAGATTCCGTAT NH2 AGCCATATCCAGAAGCAAGATCTTGC gagggtcgggc atacgggaatccgtgcgc CCGTCACGCGCTCGGATTCCGTAT NH2 atacgggaatccgaggcgc	3519 3520 3521 3522 3523 3524

FIG. 49A-17

hAPOA1	1	Probe Invader Stacker Arrestor Probe Stacker	AACGAGGCGCACCTTCTGGC NH2 CTCTTGACAGCTCGTGCAGA gcgcgccctct gccagaaggtgcgc AACGAGGCGCACCTTCTGGCG NH2 cgcgccctcttg	3525 3526 3527 3528 3529 3530
hAPOA1	1	Probe Invader Stacker Arrestor	AACGAGGCGCACCGCTGTAGG NH2 GCTGGCGCAGCTCGTA gggccagatgcgt cctacagcggtgccg	3531 3532 3533 3534
hLCAT	1	Probe Invader Stacker Arrestor Probe Stacker	AACGAGGCGCACCTCAGCCTT NH2 GGCCGTGTGTGGTTACTGAGA ggcgtggtgtgc aaggctgaggtgcgc AACGAGGCGCACCTCAGCCTTG NH2 ggcgtggtgtgcg	3535 3536 3537 3538 3539 3540
hLCAT	1	Probe Invader Stacker Arrestor	AACGAGGCGCACCGCCTTG NH2 CCGTGTGTGGTTACTGAGCTA gcgtggtgtgcgg ccaaggctggtgcgc	3541 3542 3543 3544
hIVL	1	Probe Invader Stacker Arrestor Probe Stacker	AACGAGGCGCACGCTCCTTC NH2 GCTCCTGCTCCTGTGC tgctgtgtcacattc gaaggagcgtgcgc AACGAGGCGCACGCTCCTTCT NH2 gctgtgtgtcacattct	3545 3546 3547 3548 3549 3550

FIG. 49A-18

hIVL	2	Probe Invader Stacker Arrestor	CCGTACGCCCTCGCTCCTTCTGC NH2 CAGCTCCTGCTCCTGTGC TGTGCTCACATTCTTGCTCAGGC gcagaaggagcgagggcg	3551 3552 3553 3554
rGPR37	1	Probe Invader Stacker Arrestor	AACGAGGCGCACCTGGACGTTG NH2 GGAAGAACAATTTTCAATCATTTTCATAGTACATA gtggcagcccg caacgtccagggtgcgc	3555 3556 3557 3558
rGPR37	1	Probe Invader Stacker Arrestor	AACGAGGCGCACATCATTTTCATAGTACA NH2 GGCAGTGGTGGAGAACAATTTTCAC tcggacgttggtgg tgtactatgaaatgatgtgcgc	3559 3560 3561 3562
rGPR37	1	Probe Invader Stacker Arrestor	AACGAGGCGCACATCATTTTCATAGTACATCT-NH2 agttggcagtggtggaagaaCAATTTTCAG ggacgttggtggcagccc agatgtactatgaaatgatgtgcgc	3563 3564 3565 3566
rEsr2 (rER Beta)	1	Probe Invader Stacker Arrestor	AACGAGGCGCACCTCTAGTGATCT NH2 CTCTCTGTTTACAGGTAAGGTGTGA tgcttcacaccaaggac agatcactagagggtgcgc	3567 3568 3569 3570
rEsr2 (rER Beta)	2	Probe Invader Arrestor	CCGTACGCCCTCCTCTAGTGATCTTGCT-NH2 GTCTCTCTGTTTACAGGTAAGGTGTGG agcaagatcactagaggagggcg	3571 3572 3573

FIG. 49A-19

Secondary system		Oligo Sequence (5' to 3')		SEQ ID NO
FRET probe		FL-CAC-Z28-TGC TTC GTG G		3574
Secondary Reaction Template 1		CCA GGA AGC AAG TGG TGC GCC TCG tt		3575
Secondary Reaction Template 2		CCA GGA AGC AAG TGG AGG CGT GAC ggt		3576
Secondary Reaction Template 3		CCA GGA AGC AAG TGA CGC AGC GAC ggt		3577
Assays human PTGS2	SRT #	Oligo Type	Oligo Sequence (5' to 3')	SEQ ID NO
	1	Probe	5'-AACGAGGGCGCACAGAGGTTAGAGAAAG-NH2-3'	3578
		Invader	5'-GGAGGAAGGGCTCTAGTATAATAGGC-3'	3579
		Stacker	5'-gcttcccagctttttagc -3'	3580
		Arrestor	5'-cttcttaacctctgtgcgc -3'	3581
human FACL1,2	2	Probe	5'-CCGTCACGCCCTCGTTGGCTCTTCCC-NH2-3'	3582
		Invader	5'-GGCTTGGGCTTCCGTCTC-3'	3583
		Arrestor	5'-gggaagagaccaagaggcg-3'	3584
rat RPS29	2	Probe	5'-CCGTCACGCCCTCGCCTATGTCCTT NH2-3'	3585
		Invader	5'-AGGTCGCTTAGTCCAACTTAATGAAC-3'	3586
		Stacker	5'-cgcgtactgacggaagcactgtc-3'	3587
		Arrestor	5'-aaggacataggcgaggcg-3'	3588
human RPL5	1	Probe	5'-AACGAGGGCGCACGCTTCCGATGTACT NH2-3'	3589
		Invader	5'-GCATGTAACTCTGCAACATTCTGGCCCATGATGTA-3'	3590
		Stacker	5'-TCTGCATTAAATTCCTTGCTTTCAGAAATCATAACCAAGG-3'	3591
		Arrestor	5'-agtlacatcggaagcgtgcgc-3'	3592
	1	Probe	5'-AACGAGGGCGCACGCTTCCGA NH2-3'	3593
		Invader	5'-GCAACATTCTGGCCCATGATGTC-3'	3594
		Stacker	5'-tgtacttctgcattaaattcct-3'	3595
		Arrestor	5'-tcggaagcgtgcgc-3'	3596

FIG. 49A-20

1	Probe	5'-AACGAGGCGCACCTTCCGAT NH2-3'	3597
	Invader	5'-GCAACATTCTGGCCCATGATGTGA-3'	3598
	Stacker	5'-gtactctgcattaaattcct-3'	3599
	Arrestor	5'-atcgggaagtgcg-3'	3600
2	Probe	5'-CCGTACAGCGCTCCTCTTTGCTTAAC NH2-3'	3601
	Invader	5'-CATTTTCCCTTGGCTAGAAAACGAACTCTGTACGTATAAGGACA-3'	3602
	Stacker	5'-ttgaatgtgtcgtgttcacatca-3'	3603
	Arrestor	5'-gttaagcaagaggaggcg-3'	3604
2	Probe	5'-CCGTACAGCGCTCCGATTCTTCCA NH2-3'	3605
	Invader	5'-CACGTCTGTCTTATAGTGGAGACTCAA-3'	3606
	Stacker	5'-CATACCGATAGATGATTTCCAGAGCCGCG-3'	3607
	Arrestor	5'-tggaaaggaatcgaggcg-3'	3608
1	Probe	5'-AACGAGGCGCACCGAACAGTGT NH2-3'	3609
	Arrestor	5'-acactgttcggtgcg-3'	3610
2	Probe	5'-CCGTACAGCGCTCCGAACAGTGT NH2-3'	3611
	Arrestor	5'-acactgttcggaggcg-3'	3612
	Invader	5'-GCAGGGAGAAGTCAGCTTA-3'	3613
	Stacker	5'-gcctcctcca-3'	3614
1	Probe	5'-AACGAGGCGCACGTACTCGTAGG NH2-3'	3615
	Arrestor	5'-cctacgagtagtcg-3'	3616
2	Probe	5'-CCGTACAGCGCTCGTACTCGTAGG NH2-3'	3617
	Arrestor	5'-cctacgagtagtcg-3'	3618
	Invader	5'-CACGCTGGGCCGCGCAGC-3'	3619
	Stacker	5'-gcatgtccagctttg-3'	3620
2	Probe	5'-CCGTACAGCGCTCTTGTAGACATCCTG NH2-3'	3621
	Invader	5'-GCCAACAGGAACAGTACCAATACCACCAATTA-3'	3622
	Stacker	5'-GAGAGGCGGCGCAAGGG-3'	3623
	Arrestor	5'-caggatgtctacaagaggcg-3'	3624

FIG. 49A-21

mouse ABCA1	2	Probe	5' CCGTCACGCTCCCGGTTTTTC-NH2 3'	3625
		Arrestor	5' gaaaacggggaggcg 3'	3626
	1	Probe	5'-AACGAGGCGCACCCCGGTTTTTC NH2-3'	3627
		Arrestor	5'-gaaaacggggg'gcgc-3'	3628
		Invader	5' GGGCATCTGTTGCACGTAGACAA 3'	3629
		Stacker	5' ttctcagatccgctc 3'	3630
	2	Probe	5'-CCGTCACGCTCCCGGTTTTCT NH2-3'	3631
		Invader	5' GGGCATCTGTTGCACGTAGACAA 3'	3632
		Stacker	5'-tctcagatcccgctca-3'	3633
		Arrestor	5'-agaaaacggggaggcg-3'	3634
human ABCC2	1	Probe	5'- AAC GAG GCG CAC CTC CAA TCT CA NH2-3'	3635
		Invader	5'- CCC CCA CTA AGA TTT ATA CCC TTC TA -3'	3636
		Stacker	5'- gcc aaa tct cct cca -3'	3637
		Arrestor	5'-tga gat tgg agg tgc gc -3'	3638
	1	Probe	5'-AACGAGGCGCACTCGGACTGT NH2-3'	3639
		Invader	5'-GCCATAATGTCCAGGTTACATCA-3'	3640
		Stacker	5'-ggcttcggaatcattt-3'	3641
		Arrestor	5'-acagtcgagtgccgc-3'	3642
	1	Probe	5'-AACGAGGCGCACCAACCTGTTCA NH2-3'	3643
		Invader	5'-CATCCACTGTGGAAATATCGCCGGA-3'	3644
		Stacker	5'-caatccggcctgtg-3'	3645
		Arrestor	5'-tgaacaggttggtgcgc-3'	3646
human NR1I2	1	Probe	5'- AACGAGGCGCACGCAACTCGCA NH2-3'	3647
		Invader	5'- GGCCTGCAGAGACTCTGC -3'	3648
		Stacker	5'- gccactgtaagcac -3'	3649
		Arrestor	5'- tgcgagttgcgtgcgc -3'	3650

FIG. 49A-22

1	Probe	5'-AACGAGGCGCACCCCTCTCTGA NH2-3'	3651
	Invader	5'-GCCCTTTTAAAGGAAAGGGCAACCTTGA-3'	3652
	Stacker	5'-tggctctgacctaca-3'	3653
	Arrestor	5'-tcagagaggggtgcgc-3'	3654
1	Probe	5'-AACGAGGCGCACGATAGCCAG NH2-3'	3655
	Invader	5'-TGCATCCTTCACATGTCATGACATTGAAGTC-3'	3656
	Stacker	5'-tggcctgtgcc-3'	3657
	Arrestor	5'-ctggctatcgtgcgc-3'	3658
1	Probe	5'-AACGAGGCGCACGCGAGTGTCT-3'	3659
	Invader	5'-AAGTTGCTGGAAGCCACCTC-3'	3660
	Stacker	5'-tccaagcagtaggaca-3'	3661
	Arrestor	5'-agacactcgtgcgc-3'	3662
human ABCB1	Probe	5'- AAC GAG GCG CAC CAT CCA GAG NH2-3'	3663
	Invader	5'- CCT CCA AAA GGA AAC TGG AGG TAT ACT TTA -3'	3664
	Stacker	5'- cct ctt tgg tac taa gc -3'	3665
	Arrestor	5'- ctc tgg atg gtc cgc -3'	3666
1	Probe	5'-AACGAGGCGCACCTTCTATTAGTGA NH2-3'	3667
	Invader	5'-CAGATTCATGAAGAACCCCTGTATCATTGATATCAA-3'	3668
	Stacker	5'-tgtttgacatcagatcttctaaat-3'	3669
	Arrestor	5'-tcactaataagaagggtgcgc-3'	3670
1	Probe	5'-AACGAGGCGCACAAATATCCTGTCC NH2-3'	3671
	Invader	5'-CCCGTAGAAACCTTACATTTATGTCCTC-3'	3672
	Stacker	5'-atcaacactgaccatccctctgt-3'	3673
	Arrestor	5'-ggacaggatattgtgcgc-3'	3674

FIG. 49A-23

1	Probe	5'-AACGAGGCGCACCATTTCTGCTG NH2-3'	3675
	Invader	5'-GATTTCATCAGCTGCATTTTCTAATTCAACTTA-3'	3676
	Stacker	5'-tcitgcaattgacaagtttg-3'	3677
	Arrestor	5'-cagcaggagaaatggtgcgc-3'	3678
2	Probe	5'-CCGTACAGCGCTCCATCCAGAG NH2-3'	3679
	Invader	5'-CCTCCAAAAAGGAAACTGGAGGTATACTTTA-3'	3680
	Stacker	5'-cctctttgttactaagc-3'	3681
	Arrestor	5'-ctctggatggaggcg-3'	3682
1	Probe	5'-AACGAGGCGCACCTTTCAAGGTG NH2-3'	3683
	Invader	5'-CTGTAGGCCCCCAAGACGTA-3'	3684
	Stacker	5'-acaggcttgctgt-3'	3685
	Arrestor	5'-cacctgaaagtgcgctcgtt-3'	3686
1	Probe	5'-AACGAGGCGCACCTTCACTCCAAAT NH2-3'	3687
	Invader	5'-TCTTGTGGATTGTTGAGAGAGTCGATGA-3'	3688
	Stacker	5'-gatgtgctagtacatc-3'	3689
	Arrestor	5'-atttggagtgaagtgcgctcgtt-3'	3690
1	Probe	5'-AACGAGGCGCACCTCACTCCAAAT NH2-3'	3691
	Invader	5'-TTGTGGATTGTTGAGAGAGTCGATGTA-3'	3692
	Stacker	5'-gatgtgctagtacatc-3'	3693
	Arrestor	5'-atttggagtgaagtgcgctcgtt-3'	3694
1	Probe	5'-AACGAGGCGCACCATATAATGAAGGAGAG NH2-3'	3695
	Invader	5'-GGGTGAGTGGCCAGTTCATAA-3'	3696
	Stacker	5'-aacactgctcgttggtt-3'	3697
	Arrestor	5'-ctctccttcattatgggcgc-3'	3698

h3A4

FIG. 49A-24

1	Probe	5'-AACGAGGCGCAGATAATGAAGGAGAG NH2-3'	3699
	Invader	5'-GGTGAGTGGCCTGTTCATACC-3'	3700
	Stacker	5'-aacactgctcgtggtt-3'	3701
	Arrestor	5'-ctctccttcattatctgcgc-3'	3702
1	Probe	5'-AACGAGGCGCAGAGCAAACT NH2-3'	3703
	Invader	5'-ACTCTGATTAGAGCAAGTTTCATGTTTCATC-3'	3704
	Stacker	5'-catgccaatgcagttct-3'	3705
	Arrestor	5'-aggtttgctctcgtgcgc-3'	3706
1	Probe	5'-AACGAGGCGCACGTTTCAAGGTG NH2-3'	3707
	Invader	5'-CTGTAGGCCCCCAAAGACGTC-3'	3708
	Stacker	5'-acaggctgcctgt-3'	3709
	Arrestor	5'-cacctgaaacgtgcgcctcgtt-3'	3710
1	Probe	5'-AACGAGGCGCACTTTCAAGGTG NH2-3'	3711
	Invader	5'-CTGTAGGCCCCCAAAGACGTGA-3'	3712
	Stacker	5'-acaggctgcctgt-3'	3713
	Arrestor	5'-cacctgaaagtcgcctcgtt-3'	3714
1	Probe	5'-AACGAGGCGCACCTCACTCCAAAT NH2-3'	3715
	Invader	5'-TCTTGTGGATTGTTGAGAGAGTCGATGA-3'	3716
	Stacker	5'-gatgtctagtcacalc-3'	3717
	Arrestor	5'-atttgagtgaggtcgcctcgtt-3'	3718
1	Probe	5'-AACGAGGCGCACATAATGAAGGAGAG NH2-3'	3719
	Invader	5'-GGGTGAGTGGCCAGTTCATAA-3'	3720
	Stacker	5'-aacactgctcgtggtt-3'	3721
	Arrestor	5'-ctctccttcattatagtcgcgc-3'	3722

h3A7

FIG. 49A-25

1	Probe	5'-AACGAGGCGCAGATAATGAAGGAGAG NH2-3'	3723
	Invader	5'-GGGTGAGTGGCCAGTTTCATATC-3'	3724
	Stacker	5'-aacacgtctcgtggtt-3'	3725
	Arrestor	5'-ctctccttcattatctcggc-3'	3726
1	Probe	5'-AACGAGGCGCACCGAGAGCAAACC NH2-3'	3727
	Invader	5'-TCTGACTAGAGCAAGTTTCATGTTCAA-3'	3728
	Stacker	5'-tcattgccaatgcagtttc-3'	3729
	Arrestor	5'-ggttgctctcgtcggc-3'	3730
1	Probe	5'-AACGAGGCGCAGAGAGCAAACCT NH2-3'	3731
	Invader	5'-TCTGACTAGAGCAAGTTTCATGTTCAACC-3'	3732
	Stacker	5'-catgccaatgcagtttct-3'	3733
	Arrestor	5'-aggttctctcctcggc-3'	3734
1	Probe	5'-AACGAGGCGCACAGCATGATAAGCA NH2-3'	3735
	Arrestor	5'-tgcttatcatgtcggc-3'	3736
2	Probe	5'-CCGTACAGCCTCAGCATGATAAGCA NH2-3'	3737
	Arrestor	5'-tgcttatcatgtcaggcg-3'	3738
1	Invader	5'-GGTGACGCCCAGTGAGC-3'	3739
	Stacker	5'-gcaacattaacaccaggatgat-3'	3740
1	Probe	5'-AACGAGGCGCACGGAGGTGAATTAG NH2-3'	3741
	Arrestor	5'-ctaattcacctccgtcggc-3'	3742
2	Probe	5'-CCGTACAGCCTCGGAGGTGAATTAG NH2-3'	3743
	Arrestor	5'-ctaattcacctccgaggcg-3'	3744
1	Invader	5'-TCACAGCCCCATTTTCTTGTTTCAC-3'	3745
	Stacker	5'-tgtaaagcacctgttct-3'	3746
1	Probe	5'-AACGAGGCGCACGGAGGTGAATTA NH2-3'	3747
	Arrestor	5'-taattcacctccgtcggc-3'	3748
2	Probe	5'-CCGTACAGCCTCGGAGGTGAATTA NH2-3'	3749
	Arrestor	5'-taattcacctccgaggcg-3'	3750
1	Invader	5'-TCACAGCCCCATTTTCTTGTTTCAC-3'	3751
	Stacker	5'-gtgtaaagcacctgtttc-3'	3752

rat SLC10A1

human CD36

FIG. 49A-26

1	Probe	5'-AACGAGGCGCACGACAGATTCCCTTT NH2-3'	3753
	Arrestor	5'-aaaggaatctgtgcgc-3'	3754
	Probe	5'-CCGTCACGCCCTCGACAGATTCCCTTT NH2-3'	3755
	Arrestor	5'-aaaggaatctgtgcgc-3'	3756
	Invader	5'-ATGTCGACGTGACATTTCCCAATAGC-3'	3757
2	Stacker	5'-taccttattatgtcgattatgg-3'	3758
	Probe	5'-AACGAGGCGCACGGTTTTTCAACTG NH2-3'	3759
	Arrestor	5'-cagttgaaaacgtgcgc-3'	3760
	Probe	5'-CCGTCACGCCCTCGGTTTTTCAACTG NH2-3'	3761
	Arrestor	5'-cagttgaaaacgtgcgc-3'	3762
1	Invader	5'-TCTGTGCAGAAACAA TAGTTGTCTGC-3'	3763
	Stacker	5'-gagaggcaaggcct-3'	3764
1	Probe	5'-AACGAGGCGCACCGTATTTGAAGACATAAG NH2-3'	3765
	Invader	5'-GGCTGACCATACTGTTGCTCTAA-3'	3766
	Stacker	5'-taaaagcaccataatagctgct-3'	3767
	Arrestor	5'-cttatgttcaataacgtgcgc-3'	3768
1	Probe	5'-AACGAGGCGCACCCAGCAGTAAACAT NH2-3'	3769
	Invader	5'-aggtaaaaggACAATGACATCAA-3'	3770
	Stacker	5'-gagaatttgcaattccaacg-3'	3771
	Arrestor	5'-atgtttactgctggtgcgc-3'	3772
1	Probe	5'-AACGAGGCGCACCTACATATCCAATATC NH2-3'	3773
	Invader	5'-CTTAGGAGTTATTCTGATAGTGCTCAGATA-3'	3774
	Stacker	5'-cacgtacatttagcaaacagagat-3'	3775
	Arrestor	5'-galattggatagtagggtgcgc-3'	3776
1	Probe	5'-AACGAGGCGCACCAAGAGGATATCATC NH2-3'	3777
	Invader	5'-cagattagagggaaa TAGAAGTTGAAAA-3'	3778
	Stacker	5'-gaagtaagaatgaaaatttggcaattcc-3'	3779
	Arrestor	5'-gatgatctcttctgggtgcgc-3'	3780

human SLC21A6

human SLC21A8

FIG. 49A-27

1	Probe	5'-AACGAGGCGCACTAAATGTGGTACCT NH2-3'	3781
	Invader	5'-CAGGTTGAACAATCTTCACAGTCAACAAGAA-3'	3782
	Stacker	5'-cctgttcagagaacaaaga-3'	3783
	Arrestor	5'-aggtaccacatttagtcgc-3'	3784
human SLC21A9			
1	Probe	5'-AACGAGGCGCACGCTGTTGTC NH2-3'	3785
	Invader	5'-GCTGCAGTTGGTGTAGAAAACCTGTC-3'	3786
	Stacker	5'-cagagcatcctggac-3'	3787
	Arrestor	5'-gacaacagcgtgcgc-3'	3788
1	Probe	5'-AACGAGGCGCACCCAAAATCCTCA NH2-3'	3789
	Invader	5'-GGCTGGGCATCCAGGA-3'	3790
	Stacker	5'-ggaacatgaactggatgcc-3'	3791
	Arrestor	5'-tgaggatttgggtgcgc-3'	3792
1	Probe	5'-CCGTACAGCCTCGCTAAGGCTC NH2-3'	3793
	Invader	5'-GTTCAATCTCTACCTGACAGGAGATGC-3'	3794
	Stacker	5'-aagaaggtgatccaggc-3'	3795
	Arrestor	5'-gagccttagcgaggcg-3'	3796
human SULT Pan 1A			
1	Probe	5'-AACGAGGCGCACCCCTTGACCTTC NH2-3'	3797
	Arrestor	5'-gaaggtcaagggtcgc-3'	3798
2	Probe	5'-CCGTACAGCCTCCCCTTGACCTTC NH2-3'	3799
	Arrestor	5'-gaaggtcaagggaggcg-3'	3800
	Invader	5'-TTGCGTTGCGGGCAACATAGACCAA-3'	3801
	Invader	5'-TTGCGTTTCTGGGCAACATAGACCAA-3'	3802
	Stacker	5'-tgatccaacagagtctgg-3'	3803
1	Probe	5'-AACGAGGCGCACCCGCATCGAAG NH2-3'	3804
	Arrestor	5'-cttcgatcgggtcgc-3'	3805
2	Probe	5'-CCGTACAGCCTCCCGCATCGAAG NH2-3'	3806
	Arrestor	5'-cttcgatcgggaggcg-3'	3807
	Invader	5'-CTGCCATCTTCTCCGCATAGTA-3'	3808
	Stacker	5'-cgctcattctgcgc-3'	3809

FIG. 49A-28

1	Probe	5'-AACGAGGCGCACCCGCGCATAGTC NH2-3'	3810
	Arrestor	5'-gactatgcgggtgcgc-3'	3811
	Probe	5'-CCGTACAGCCTCCCGCATAGTC NH2-3'	3812
	Arrestor	5'-gactatgcgggaggcg-3'	3813
	Invader	5'-TGCAGCCTGCCATCTTCTA-3'	3814
	Stacker	5'-cgcatogaagcgctca-3'	3815
1	Probe	5'-AACGAGGCGCACCAATTGCCATAGC NH2-3'	3816
	Arrestor	5'-gctatggcaattgtgcgc-3'	3817
	Probe	5'-CCGTACAGCCTCCAATTGCCATAGC NH2-3'	3818
	Arrestor	5'-gctatggcaattggaggcg-3'	3819
	Invader	5'-GAGGGATTTTGCCCAAAAGCATCAGA-3'	3820
	Stacker	5'-ttctctctgtgaattctg-3'	3821
1	Probe	5'-AACGAGGCGCACCGCTTTGCATT NH2-3'	3822
	Arrestor	5'-aatgcaaaagcgtgcgc-3'	3823
	Probe	5'-CCGTACAGCCTCCGCTTTGCATT NH2-3'	3824
	Arrestor	5'-aatgcaaaagcggaggcg-3'	3825
	Invader	5'-CAGCTCCCTTAGTCTCCATGA-3'	3826
	Stacker	5'-gtccatctgaccacaaac-3'	3827
1	Probe	5'-AACGAGGCGCACCGACGGCCAA NH2-3'	3828
	Arrestor	5'-ttggccgctcgtgcgc-3'	3829
	Probe	5'-CCGTACAGCCTCCGACGGCCAA NH2-3'	3830
	Arrestor	5'-ttggccgctcggaggcg-3'	3831
	Invader	5'-GTGATGAAGGCCACTGTCAGCAA-3'	3832
	Stacker	5'-gaggaacccaatcacgtcc-3'	3833

human UGT Pan 1A

FIG. 49A-29

Secondary system			SEQ ID NO
Assays	SRT # Oligo Type	Oligo Sequence (5' to 3')	
hCEACAM5	1 Probe	FL-CAC-Z28-TGC TTC GTG G	3834
	Invader	CCA GGA AGC AAG TGG TGC GCC TCG tt	3835
	Stacker	CCA GGA AGC AAG TGG AGG CGT GAC ggt	3836
	Arrestor	CCA GGA AGC AAG TGA CGC AGC GAC ggt	3837
hCEACAM5	1 Probe	AACGAGGCGCACTGTGAGCAGGA-NH ₂	3838
	Invader	GGTTCCAGAAAGGTTAGAAAGTGAGGCA	3839
	Stacker	gcctctgccagg	3840
	Arrestor	tcctgctcacagtgcgc	3841
hCEACAM5	1 Probe	AACGAGGCGCACAAATCACTGCGCC-NH ₂	3842
	Invader	CCATAGAGGACATTCAGGATGACTGC	3843
	Stacker	tggcactcactggg	3844
	Arrestor	tcctgctcacagtgcgc	3845
hCEACAM5	1 Probe	AACGAGGCGCACAAATCACTGCGCC-NH ₂	3846
	Stacker	ctggcactcactgg	3847
	Arrestor	gcgcagtgatgtgcgc	3848
hCEACAM5	2 Probe	CCGTACAGGCCTCCTTGCTGTGT-NH ₂	3849
	Invader	GGTTCTGGGTTTCACATTTGTAGA	3850
	Stacker	caIttcttgacattgaatagagt	3851
	Arrestor	acacagcaaggaggcgc	3852
hCEACAM5	1 Probe	AACGAGGCGCACCACTGAGTAGA-NH ₂	3853
	Invader	GGTCCTACATCATTCCTTGTGAA	3854
	Stacker	gtgagggtcctgtt	3855
	Arrestor	tctactcagtggtgcgc	3856

FIG. 49A-30

hCEACAM5	1	Probe	AACGAGGCGCACTTGCTGGAT-NH ₂	3857
		Invader	TTGAGATAAAGAGCTCTTGTGTGTGA	3858
		Stacker	gtcccatcaatcaga	3859
		Arrestor	atccagcaagtgcgc	3860
hNOS2A	2	Probe	CCGTCACGCCCTCGTTTCTATCTCCTTTGT-NH ₂	3861
		Invader	CGTCAGTTGGTCGGTTCCTGTTC	3862
		Arrestor	acaaaggagatagaaacgaggcg	3863
hNOS2A	2	Probe	CCGTCACGCCCTCGTTTCTATCTC-NH ₂	3864
		Invader	CGTCAGTTGGTCGGTTCCTGTTC	3865
		Stacker	ctttgtaccgcttc	3866
		Arrestor	gagatagaaacgaggcg	3867
hOSM	1	Probe	AACGCGGCGCACTGTTGTTTCCT-NH ₂	3868
		Invader	GCTGGGCCCATGCAGTAGAA	3869
		Stacker	gagcccgaggatgt	3870
		Arrestor	aggaaacaacagtgcgc	3871
hOSM	1	Probe	AACGAGGCGCACTGTTGTTTCC-NH ₂	3872
		Stacker	tgagcccgaggatgt	3873
hOSM	1	Probe	AACGAGGCGCACGCTCTGAGTTGT-NH ₂	3874
		Invader	GTGGGCTCAGCCGTC	3875
		Stacker	ccagcagctggg	3876
		Arrestor	acaactcagacgtgcgc	3877
hICAM	2	Probe	CCGTCACGCCCTCGGCTTGTGTGTTCC-NH ₂	3878
		Invader	CCGGGATAGGTTTCAGGGAGGCGTC	3879
		Stacker	ggtttcatgggggtccct	3880
		Arrestor	gaacacacaagccgaggcg	3881

FIG. 49A-31

hICAM	1 Probe Invader Stacker Arrestor	AACGAGGCGCACGGCTTGTGT-NH ₂ GATAGTTTCAGGAGGCGTC gttcggttcatggg acacaagccgtgcgc	3882 3883 3884 3885
hICAM	1 Probe Invader Stacker Arrestor	AACGAGGCGCACGTATTTCTTGATCTTC-NH ₂ TTTTGGCCTGTTGTAGTCTC cgctggcgttatagag gaagatcaagaaatacgtgcgc	3886 3887 3888 3889
hICAM	1 Probe Invader Stacker Arrestor	AACGAGGCGCACACCATGGC-NH ₂ CTAGTGTTTTAGGTGTGCAGGTC cccaaatgctgtgtatct gccatgggtgcgc	3890 3891 3892 3893
hICAM	1 Probe Invader Stacker Arrestor	AACGAGGCGCACACCATGGCC-NH ₂ CTAGTGTTTTAGGTGTGCAGGTC ccaaatgctgtgtatctga ggccatgggtgcgc	3894 3895 3896 3897
Neomycin	1 Probe Invader Stacker Arrestor	AACGCGGCGCACGCCATTTTCCAC-NH ₂ CCACAGTCGATGAATCCAGAAAAGCGA catgatattcggaagcag tggaaaatggcgtgcgc	3898 3899 3900 3901
Neomycin	1 Probe Stacker	AACGCGGCGCACGCCATTTTCCA-NH ₂ ccatgatattcggaagcag	3902 3903

FIG. 49A-32

Neomycin	1 Probe	AACGAGGCGCACCAGTTCATTCAAG-NH ₂	3904
	Invader	CGCTGCCTCGTCCTGA	3905
	Stacker	ggcaccggacagg	3906
	Arrestor	ctgaatgaactggtgcgc	3907
hMMP3	2 Probe	CCGTCACGCCCTCGTCCATTGTTCA-NH ₂	3908
	Invader	TGGTCCCTGTTGTATCCTTTC	3909
	Stacker	tcatcatcaaaagtggcga	3910
	Arrestor	tgaacaatggacgagcg	3911
hMMP3	2 Probe	CCGTCACGCCCTCGTCCATTGTTCA-NH ₂	3912
	Stacker	catcatcaaaagtggcgc	3913
	Arrestor	atgaacaatggacgagcg	3914
hMMP13	1 Probe	AACGAGGCGCACTCAAGGGATAAGGA-NH ₂	3915
	Invader	CCTCGGAGACTGGTAATGGCAA	3916
	Stacker	agggcacattgtctg	3917
	Arrestor	tccttatccctgagtgcc	3918
hMMP13	2 Probe	CCGTCGCTGCGTTTCTTCCC-NH ₂	3919
	Invader	CAAGCTTTCTCCTGATAGCTCA	3920
	Stacker	ctaccccgcacttc	3921
	Arrestor	gggaagaaacgcag	3922
hMMP13	2 Probe	CCGTCGCTGCGTTTCTTCCCC-NH ₂	3923
	Stacker	taccccgcactct	3924
	Arrestor	ggggaagaaacgcag	3925
hMMP13	1 Probe	AACGAGGCGCACGGCATCAAGG-NH ₂	3926
	Invader	GTTTCTCTCGGAGACTGGTAATC	3927
	Stacker	gataagggaagggtcacattg	3928
	Arrestor	cctgatgccgtgcgc	3929

FIG. 49A-33

hMMP13	1 Probe	AACGAGGGCGCACTCTTCTTCC-NH ₂	3930
	Invader	GAACCAAGCTTTCTCCTGATAGCA	3931
	Stacker	cctacccgcact	3932
	Arrestor	ggaagaagagtgcg	3933
hLipC	1 Probe	AACGAGGGCGCACCTTTTGTTCGA-NH ₂	3934
	Invader	AGAGTGATGGGAATTTTCTGCATTTTCTA	3935
	Stacker	gtagtgacatgglaaaagtgtt	3936
	Arrestor	tcggaacaaaagggtcgc	3937
hLipC	1 Probe	AACGAGGGCGCACCTTTTGTTCGA-NH ₂	3938
	Invader	AGAGTGATGGGAATTTTCTGCATTTTCTA	3939
	Stacker	agtagtgacatgglaaaagtgt	3940
	Arrestor	cggaaacaaaagggtcgc	3941
hLipC	2 Probe	CCGTCACGCCCTCCTTTTGTTCGA-NH ₂	3942
	Stacker	gtagtgacatgglaaaagtgtt	3943
	Arrestor	tcggaacaaaaggagcg	3944
hLipC	2 Probe	CCGTCACGCCCTCCTTTTGTTCGA-NH ₂	3945
	Arrestor	cggaaacaaaaggagcg	3946
r/m LipC	2 Probe	CCGTCACGCCCTCGGAGTCAAT-NH ₂	3947
	Invader	GCAGGTTGCTGTGTTGCAAC	3948
	Stacker	gaagaggigcacagaacg	3949
	Arrestor	attgactccgagggcg	3950
r/m LipC	1 Probe	AACGAGGGCGCACTGATGGGAATTTTC-NH ₂	3951
	Invader	GTAATTCCTTCGCCCAGGGA	3952
	Stacker	tttatttctttttgtccc	3953
	Arrestor	gaaaattcccatcagtgcg	3954

FIG. 49A-34

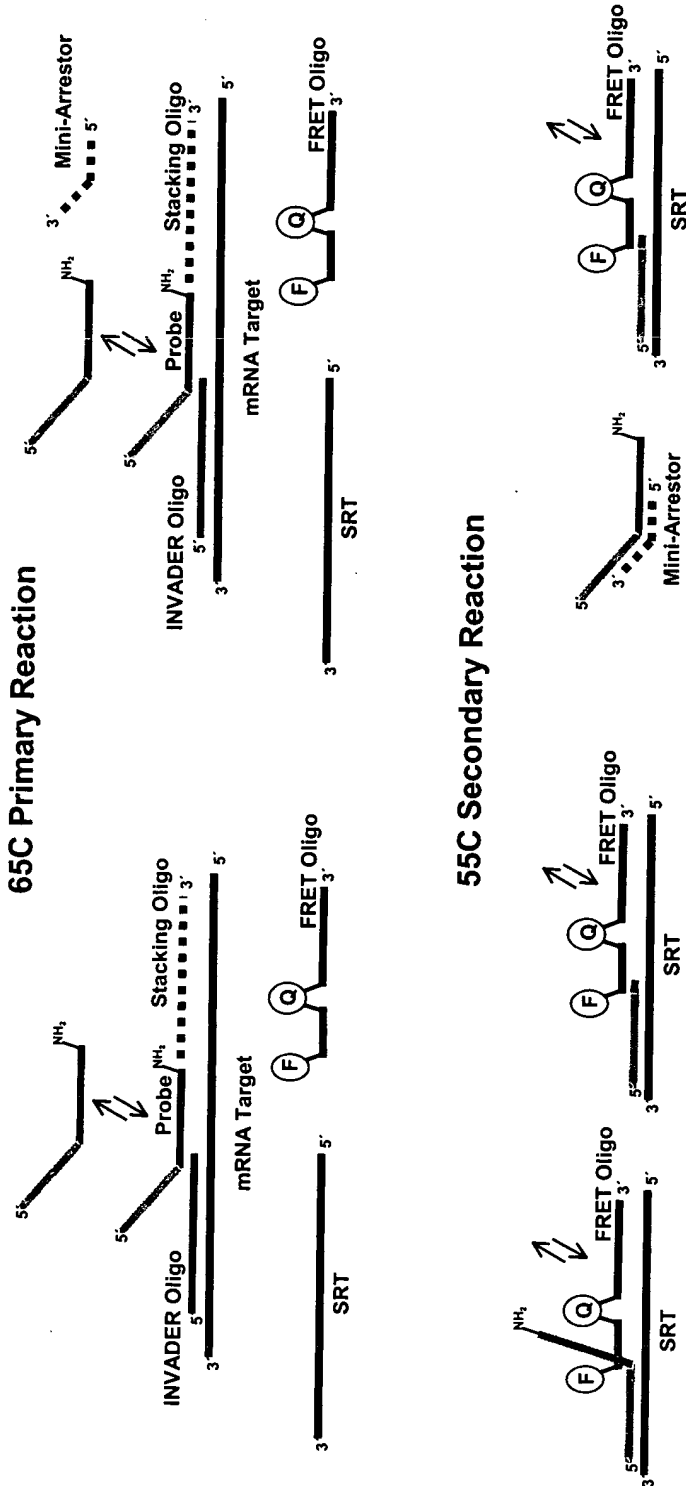
r/m Lipc	1 Probe	AACGAGGCGCACTGCTTCTTCA-NH ₂	3955
	Invader	TCTCTTGACTCATCTGCTCTTTA	3956
	Stacker	gtcttttgactcaggtc	3957
	Arrestor	tgaagaagcagtgcg	3958
r/m Lipc	1 Probe	AACGAGGCGCACTGCTTCTTCACT-NH ₂	3959
	Invader	TCTCTTGACTCATCTGCTCTTTA	3960
	Stacker	ctttgacttcaggtcac	3961
	Arrestor	actgaagaagcagtgcg	3962
hVCAM	2 Probe	CCGTACGCGCTCGCCTTTGTTTG-NH ₂	3963
	Invader	GGGCAACATTGACATAAAGTGTTTGGCTACTCTC	3964
	Stacker	ggttcgaattccatgcatc	3965
	Arrestor	caaacaaaaggcgaggcg	3966
hVCAM	1 Probe	AACGAGGCGCACATGTGTAATTTAGCT-NH ₂	3967
	Invader	GTGGGCACAGAATCCATTTCATCAC	3968
	Stacker	cggcaacaagaacttttcca	3969
	Arrestor	agctaaattacacatgtagc	3970
hVCAM	1 Probe	AACGAGGCGCACATGTGTAATTTAGCTC-NH ₂	3971
	Stacker	ggcaacaagaactttccaatat	3972
	Arrestor	gagctaaattacacatgtagc	3973
hVCAM	1 Probe	AACGAGGCGCACGCGCTTTGTTTG-NH ₂	3974
	Invader	GCAACATTGACATAAAGTGTTTGGCTACTCTC	3975
	Stacker	ggttcgaattccatgcat	3976
	Arrestor	caaacaaaaggcgtagcg	3977
hVCAM	2 Probe	CCGTACGCGCTCGCCTTTGTTTG-NH ₂	3978
	Invader	GCAACATTGACATAAAGTGTTTGGCTACTCTC	3979
	Stacker	ggttcgaattccatgcat	3980
	Arrestor	caaacaaaaggcgaggcg	3981

FIG. 49A-35

hRPL19	1 Probe	AAGCAGGGCGCACCTTCCTTGG-NH ₂	3982
	Invader	CTCTTCACGGCGCTTGCGTGA	3983
	Stacker	tcttagacctgcgagcc	3984
	Arrestor	ccaaggaaggcg	3985
hRPL19	1 Probe	AACGAGGGCGCACTGCTTCCTTG-NH ₂	3986
	Invader	GCTCTTCACGGCGCTTGCGA	3987
	Stacker	gtcttagacctgcgagcc	3988
	Arrestor	caaggaagcagcg	3989
r/m RPL19	1 Probe	AAGCAGGGCGCACCTTCCTTGG-NH ₂	3990
	Invader	CTCCCGGGCGCTTTCGTGA	3991
	Stacker	tcttagacctgcgagcc	3992
	Arrestor	ccaaggaaggcg	3993
r/m RPL19	1 Probe	AACGAGGGCGCACTGCTTCCTTG-NH ₂	3994
	Invader	CCTCCCGGGCGCTTTCGA	3995
	Stacker	gtcttagacctgcgagcc	3996
	Arrestor	caaggaagcagcg	3997
h18S rRNA	Probe	Red-CGA-EQ-TTTTACTTCC	3998
	Probe	Red-CGA-EQ-TTTTACTTCCCTCT	3999
	Probe	FI-CGACTTTTACTTCCCTCT	4000
	INVADER oligonucleotide	GGTTCACCTACGGAACCTTGTTAA	4001
	Stacker	tctagatagtcaggtcgaccg	4002
	Stacker	tctagatagtcaggtcgaccgtcttc	4003
	Arrestor	agaggaagtaaaattcg	4004

FIGURE 50

A No Arrestor Format B Mini-Arrestor Format



..... 2'-OMe nucleotides